

THE
ENGLISH COACH BUILDERS'
Illustrated Record
OF THE
INTERNATIONAL EXHIBITION
1862.



John Bury, Engraver, &c.

LONDON WILLIAM DORMER,

21, WARWICK SQUARE, PATERNOSTER ROW.

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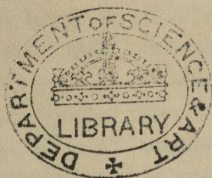
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ILLUSTRATED RECORD

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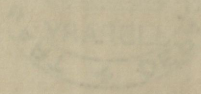
THE COACH-BUILDERS' RECORD

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1862.



ELLIAN BOKNER 21, WARWICK SQUARE PATENOSTER ROW, E.C.
LONDON.

THE ENGLISH COACH-BUILDERS' ILLUSTRATED RECORD

OF THE
INTERNATIONAL EXHIBITION, 1862.

THE INTERNATIONAL EXHIBITION.

THE ENGLISH CARRIAGE DEPARTMENT.

THE inauguration of the International Exhibition has been celebrated by a mighty chorus of grumble, and such a chorus as no master of music would dream of conducting, but which has followed its legitimate leader, Fashion, with a docility and steadiness edifying to behold. All nations, peoples, kindreds, tongues, and pens, have combined to produce a Babel of discontent, far exceeding in its scope and intensity all our previous experiences of grumbling. Judging from the public prints, all the visitors to our fair, come from what quarter of the world they may, appear to have speedily and completely Anglicised themselves, so far as the national characteristic of grumbling is concerned. It seems as if it had been considered (what in modern slang would be called), "the correct thing," to find fault with every thing and every body belonging to the affair; or, that the ugliness of the building which is undeniable, has reflected itself in all that has been said of its arrangements; we would not be understood to hint that there has been anything but the most impartial criticism we are not amongst those who accuse the architects proper of being wrath and spiteful at the usurpation of Captain Fowkes, we know full well the favor with which a profession regards any one who *will* come into it by any but the authorized door and established entrance. Far be it from us to impute to any one a feeling akin to jealousy; although we cannot think that the complaints have been always reasonable. We have been told that the edifice never ought to have been raised, that it was built by the wrong man in the wrong place, that arrogance and incapacity, those dire twin brothers, have been the reigning characteristics of its management; that the domes are "dish-covers," or rather, said some tremendously facetious reviewer, in allusion to their not being water tight—"dripping-pans." We have had presented to us harrowing pictures of bold adventurers into the building, who have gone there, despite the warnings of the devoted ones who have preceded them, and published their woes for their behoof; representing them as being soaked by the rain through the treacherous roof; engulfed by the yawning in the flooring; as having fruitlessly endeavoured to refresh themselves with wine, too dreadful in quality to mention, and sold too at prices which made Mr. Gladstone's tariff seem a myth and a legend: moreover if the heartrending letters to the *Times* are to be believed, these unfortunates

have had pence demanded of them by waiters for handing buns, and finally quit the building in despair, have cried in the wilderness of Cromwell Road for a cab, and in the bitterness of their heart, abused Sir R. Mayne, because of cabs there was none. One of our distinguished men has said and it has been often repeated, that we Englishmen have periodical fits of morality, we go on for a long time taking little notice of the most scandalous events, but some day an unfortunate who is no worse than his unmarked predecessors is singled to bear all the indignation due to a thousand outrages on society, for a time everything is raked up which bears directly or indirectly against the unhappy culprit, it is discovered that his grandfather was hanged, that his grandmother's brother ought to have been, that his mother was involved in a certain suspicious and delicate affair, which affair proves to be a most indelicate one—and that altogether it would have been consistent with the demands of justice and the interests of the community, if the family tree, root and branch, had been transplanted to Botany Bay years ago, and so on to the end of the chapter, or rather until something else absorbs public attention. We think in like manner the British public (generally so good-natured), are seized at times with a sort of fault-finding phrenzy, and woe betide the object of it, and everybody and everything appertaining thereunto.

We are not called upon to decide as to the degree of reasonableness of the (to our mind) somewhat unmerciful criticism which has so generally obtained, or to vindicate the commissioners, committeemen, contractors, etc., from the attacks which they have *received* on every hand, it is quite possible that there has been much good cause for this rage for grumbling, it is possible also that criticism has been carried to the utmost limits of truth and justice; however this may be, it is sufficiently evident that a salutary effect has accrued, and that an energy has been displayed which would not otherwise have been awakened, and it is certainly not too late for those concerned to show that they merit more consideration than has been vouchsafed to them, and a reaction in their favour may result from the very intensity of the adverse feeling which has been manifested; it perhaps argues well for the ultimate success of the affair, that those in whom its direction has been vested, have not been petted and spoiled at the commencement; that the powers of direction have been awakened, rather roughly is true, but from the events of the last few days we may venture to conclude that they have been effectively roused to

the conviction that if they would hope for a success worth the having, everything they have to do must be done thoroughly, promptly, well, and in a liberal spirit, of course it is beyond the powers of *even* a Royal Commission to impart to the building externally a presentable appearance, but the interior arrangements may be so perfected, as to lead people to agree with that apocryphal French correspondent to the *Times*, "*who mocked himself at us*," at the Hotel Labloniere, and advised us, in the event of his Emperor coming over, to take him into the building "*blindfold*," so that his imperial tastes might not be outraged by the ugliness of the building—that the elevated tastes of the potentate as well as those of every ordinary beholder would be shocked we are not disposed to question, but I think we may take comfort from the thought that something has been achieved, for it would seem, that whereas we have over and over again attempted to make a building which everybody *does* like, our repeated failures have led us to seek the crown of success in another direction, and a building has been produced which everybody *does not* like, well may people stand aghast as they endeavour to get some idea of what appearance the building was intended to present, well might M. Theophili Gautier in his letters to the *Moniteur* hopelessly ask, to what style of Architecture does the building belong, to exclaim, that he cannot designate it by any classic name. The same writer says, that he should call the style "*mechanical*" until he finds a better denomination, and that it unites the qualities of the terminus, the market and the greenhouse, and thus in a somewhat French manner does he deal with the difficulty, although we think it will be some time before architects will learn to designate any building as belonging to terminus-markettry-greenhouse school. But buildings are something more than things of schools and styles; without attempting a comparison we may remark that the question might have been asked of Sir Joseph Paxton's building in 1851. To what order of architecture did it belong? No one attempted to say that it was pure this or true that, it was a success, and every one admired it for bold originality, its marvellous fitness for and adaptability to the purposes required. It was the consummation of one of those happy ideas, the like of which we cannot expect will be at our beck and call as often as we want them. Money will always command material but it cannot create thought.

But it is with the interior of the building we have to do, we can leave the exterior to the grumblers, certain that they, strong mouthed people as they are, can scarcely serve it too ill; for our own part we are disposed (all things considered) to be thankful that we have a building calculated, when accidents are made good, to answer every purpose required of it, and our appreciation of this excellence is strengthened by the remembrance that we raised a house for our legislators at a cost of eight millions, and after all, we found that we had no chamber in it to give decent accommodation to the 605 commons, and that on full nights honourable members must content themselves with being up stairs or on the stairs, or anywhere but in such places as their business and dignity demands.

The supreme fitness of the International Exhibition

Building to its purposes, is we think undeniable and becomes more apparent each step we take, while we cannot fail to appreciate the highly artistic and excellent manner in which Mr. Crace has carried out his decorations, there is something surprising in the manner in which he has succeeded in imparting lightness and gaiety without having recourse to gaudy colours; and those colours used are so happily chosen and blended that the eye at the first glance is attracted and delighted, and the longest contemplation does not weary it. We have perhaps in our dissatisfaction at certain failures overlooked this great and genuine success, few persons as they look from the end gallery down the nave will quite appreciate Mr. Crace's excellent work or be prepared to admit to the full, how much of the general effect is due to Mr. Crace's efforts. Again: the picture galleries are certainly better adapted for showing pictures than anything we have in this country, and will compare in this respect advantageously with any that may be seen out of it.

They have the rare qualities of being perfectly shaded, lighted, and ventilated, which latter virtue those can bear witness who find themselves less fatigued there in five hours than they would be in most other galleries in three.

But we must face the fact that we are in the building to consider a special branch of useful manufacture, although happily one in which the highest tastes for form and decoration may be not unprofitably employed; to attain excellence in which one needs almost possess the power of research and patient study of the engineer and man of science, the sculptor's quick eye for form, the painter's delicate perceptions of colour, its harmonies, contrasts, and manifold shades; proficiency in which requires a very accurate knowledge of the strength and capacities of many varieties of timber and diversities of steel and iron, the laws of motion, propulsion, and momentum, and many other matters going some distance round the circle of the sciences.

Of the portion of the building appropriated to English carriages, so far as the commissioners are concerned, we cannot think that the trade has any reason to complain, the building is all that could be desired in this respect; but why, in the name of pure day-light, we ask, why should those having the direction, by their absurd and extravagant choice of window curtains, condemn themselves, their friends, and the public generally, to see everything therein *couleur de rose*, we are altogether at a loss even to attempt to determine. Perhaps the gentlemen perceived on the part of the public a tendency to take rather a yellow view of the whole affair, and sought by the diffusion of a kind of crimson glory to render it impossible.

So far as they were concerned, whatever their intentions while we are quite willing to admit they were good, we cannot say so much for the result. When we have seen persons wearing blue spectacles, we have thought that it must be unpleasant to be ever and always taking a permanent blue view of things in general: we have only to go into the English carriage-building department to experience what it is to be condemned to take a permanent red one. Leaving the French carriages, say that one has passed that somewhat dark piece of waste

between them and the English ones, open your catalogue, you will find a ruddy glow on the just now white page; your first idea is of passing a chemist's shop, where large red bottles are placed in the window; but the cause soon makes itself apparent, and is apparent all round you; you find all the colours of the carriages and their linings killed, as it were, by this ruddy omnipresence. Open a carriage lined with drab silk, the choice of the shade of which was doubtless a matter of much consideration, and the effect is as if some one were amusing himself with a pyrotechnic experiment with red fire just over your head, or a policeman's bull's eye stained red for the occasion had just been turned on. On moroccos, especially green ones, the effect is somewhat worse; the light strikes in patches on account of the irregular surface of the squabs and cushions, and the result is that the peerless morocco assorted with so much care has great dabs of brick-dust colour here and there. The painting shares the same fate. The effect of some of the best painting is completely spoiled. The green suffers most. On looking at one carriage painted a splendid dark green we thought we had discovered a great hole in the side sweep, but closer observation proved to us that it was the red light striking with great power on one part of the panel, while from the position of the carriage itself, the roundness and turn under of the body, the other parts were in comparative shade. We are aware that light and shade will sometimes, and for a minute or two, have some such effect as this, and we have only on such occasions to change our position to counteract it; but no change of position, even if the change amounted to standing on our heads, could counteract the effect of a strong red light on a highly varnished green or blue panel; the pure light of heaven never plays such fantastic tricks as this rubicund halo which the gentlemen of the coach trades committee shed around us here. We are somewhat surprised that a mistake so palpable, we may say so glaring and so easily remedied, has not been corrected.

No sooner have we recovered from the effects of this red glare and our surprise consequent thereon, than we find that the great advances which have been made during the last eleven years in the application of artistic ornament and decoration to articles of common utility, making everything more grateful to the eye in the same ratio, as they become more suitable to our convenience and requirements, have been shared in largely by English carriage-builders. In furniture, ornamental plate, pottery, and many other things, the progress in this respect is striking; and what may be said in this respect of these may be said of the display of carriages generally, especially when we take into consideration the stern and rigid limits which weight, strength, and capacity always impose on the fancy of carriage designers; and we may remark, in comparing the productions of English coach-builders with those of their fellow countrymen who are distinguishing themselves in various other branches of manufacture, that not the *Constitutionnel* nor any foreign journal can say that the merit of their works properly belongs to the foreign designers or workmen in their employ, who have been driven by loss or attracted by gain to try their fortunes or make them in this country. It must be no mean satisfaction to English coach-builders to

know that their display, whatever it may be, is theirs properly, equitably, and by the primary and indefeasible right which claims for a man the results of his own thought and industry. Of course it is not within our province to say one word as to the truth of the assertions of the indignant patriot of the *Constitutionnel*, or to discuss the question of the patriotism of the workman who takes his ability to the highest market. If it be true that men of genius of all ranks and arts do come to England as the country where they are most fully appreciated and most highly remunerated, the fact is for all Englishmen to rejoice in, as the most irrefragable assurance of our national wealth and prosperity, as redounding greatly to our character for good taste and liberality in the present, and being fraught with high hopes for the future; for what higher glory could we desire than that history, speaking of our time, shall say that our country was pre-eminently the protector and encourager of all the arts of peace and civilization—that not to a modern Mæcenas or a Medici did men of genius come for appreciation and emolument, but that they appealed, and seldom in vain, to the love of the beautiful and the liberality of the British nation? But we would remark that, true as all this may be, there is something comforting and calculated to inspire an honest pride in the fact that we can contemplate the display of English carriages at the International Exhibition, with the knowledge or the undoubted assurance that it is the result of the work of English heads and English hands. With this display altogether, although it includes some specimens of the highest order, we are forced to confess ourselves somewhat disappointed. This may arise from the fact that the changes are gradual and the progress slow, and that we, who have rather closely watched the trade since the Exposition of 1851, have become so much familiarised with each step in advance that we are incapable of justly appreciating or estimating the aggregate improvement of eleven years. Moreover, we miss some few names which have been during that time intimately associated with the progress of carriage-building; and we think we are justified in saying that, whereas in 1851 there were many carriages built regardless of monetary considerations, to show what coach-makers could do, the chief object of 1862 seems to us, with some rare and notable exceptions, to be to show what the coach-maker can sell. The coach-making events, so to speak, of the last eleven years have been, we should say, the invention or adoption of that very convenient carriage, the Waggonette, and the resuscitation of the crack carriage of our fathers, the Landau; but compare the old Landau of the past, with its full quarters and somewhat tubby outline, with its half a foot of rocker to be climbed over, with its deep well to be descended into, and its body so deep that when it was opened the riders therein appeared to be in a sort of trunk with the lid half closed, or rather to be swallowed up in a kind of mouth, the jaws of which came so far over them as to seem to threaten to engulf them altogether; think of the door-tops sticking up, and the pillar ends and joints making the head of the carriage altogether a string of joints, inequalities, and angles;—compare this, we say, with the all but perfect Landaus exhibited, with the graceful easy-flowing outlines, flat falling heads, many of the joints

concealed, and every offensive sharp corner smoothed off and ugly inequality done away with—the body, by many ingenious contrivances, so reduced in depth that the riders are not more encumbered and covered up than they would be in a well-constructed Barouche;—think that with these carriages, comparatively light as they are, all that is enjoyable and delightful in an open carriage, and all that is desirable and comfortable in a close one, can be obtained in a few minutes without detaching or fixing a stick or a screw, and there will be little room to doubt the activity and intelligence of the English coach-builders, and we may say, without fear of being charged with partiality, that our foreign competitors, whatever may be their excellence in other respects (of which we hope to have an early opportunity of speaking), have nothing in the Landau way which will bear a very close comparison with our own. We think we may look at their carriages again and again and yet feel ourselves justified in claiming for the British coach-builders the merit of having perfected that most intricately constructed and variously useful carriage, the *Landau*. As to the *Waggonette*, this carriage appears to have had the principal attention of the provincial builders, and, judging from the display we have of them, and the high excellence arrived at, their attention has not been without worthy and fitting results. These carriages seem to be susceptible of an almost endless variety of form, and suitable to almost every variety of use, while their compactness, the facility which the principle on which they are constructed offers for placing the fore and hind wheels as close together as would be safe or desirable, their conformation, when they are made in the simplest manner, rendering any material weight of iron for strengthening purposes unnecessary, and many other considerations we might instance, but which will occur readily to the practical coach-builder, lead us to the opinion that it is in these carriages pre-eminently the maximum of utility with the minimum of weight can be arrived at. While many of the specimens exhibited are a proof that they are capable of being constructed in such elegant forms as to gratify the most fastidious taste, they meet the requirements of the most exigent utilitarian. The inventors of the *Diaropha* have, perhaps, some reason to complain of the manner in which their scheme has been adapted to these carriages, in some of which all the essential parts of their invention are applied, to our minds, with even greater success than with those carriages to which the ingenious contrivance was first applied. These, then, may be said to be the leading results of the International Exhibition, 1862, so far as the English coach-makers are concerned—the perfection of the *Landau* and the *Waggonette*. We say leading results, for there are many minor ones of more or less importance, and certainly not to be overlooked; amongst others, the use of steel instead of iron may be mentioned, but that we leave for the present as worthy of any article itself. And there are many other matters we shall take an opportunity of treating of in our special mention of those carriages in which they are manifested.

OUR ILLUSTRATIONS.

THE three illustrations embodied in the present number will, we have every confidence in saying, recommend themselves for their faithfulness and artistic finish. Successful as we trust we have been in these, we pledge ourselves that the long and interesting series of which they are the commencement shall have every attention and effort on our part to make them, if possible, superior to those now submitted. We need not stay to point out the great value of such illustrations to every one connected with the trade, whether as a master or a workman, in whatever branch; but we may observe, in passing, that *The Coach Builders and Harness Makers' Art Journal* differs from many periodical publications, inasmuch as it is not comparatively useless when once perused, but will be always a valuable collection of designs, and a book of reference, and that no expense or exertion will be spared which tends to enhance its value in these important particulars.

We may remark, also, that the order in which the carriages exhibited are taken has no reference to our opinion of their respective merits; we may, for all that we know, have to use at the end of our catalogue the stereotyped phrase of "last not least;" this arrangement, or rather want of it, will in no way effect their usefulness, and, as it is convenient to ourselves, will not, we think, be detrimental to the object we have in view. We think it less our duty to decide on the comparative excellence of the works exhibited, than to indicate to the best of our ability, and without partiality, the merits and demerits of each carriage.

We commence, for instance, with Mr. Woodall's elegant and well-constructed coach, as if that were the only carriage we are likely to have to say any thing about. It is, as will be seen, of the step-piece shape, now somewhat out of fashion, although it can by no means be said to be an old-fashioned carriage. The peculiarity of this carriage which claims our attention is the means which Mr. Woodall has devised for meeting one of the great disadvantages to which persons using close carriages have been subjected, that is to say, want of ventilation, an improvement characteristic of the days when mankind are alive to the importance of oxygen, and doing away with the danger which must attend coming out of warm rooms and riding in a carriage with the glass down. The object is achieved by securing the passage of a current of pure air through the carriage without creating draughts, which might be detrimental. This is accomplished by means of a sort of open-work frieze of carved work inserted just under the cant rail of body, behind which the ventilating apparatus is placed. On the appearance of this additional carving, we almost hesitate to give an opinion; if it takes the eye rather quickly, it may be that it is quite new, and seems contrary to our ideas more on account of its novelty than that it is a violation of good taste. We cannot help thinking that the ventilation of the carriage will not be perfect unless the apparatus is applied to the back of the body.

As we understand Mr. Woodall's invention, the top, quarters, and back are left the same as in ordinary carriages; hence there is no current from back to front, to our thinking

the only means of perfectly ventilating a vehicle when travelling. The application of the invention to the top back would meet this requirement; but, however susceptible of improvement the invention may be, it cannot be denied that the projectors of it deserve the thanks of the carriage-using public, and for having given such practical proof of their solicitude with respect to its health, and for having so far succeeded with an invention the utility and advantages of which are incalculable.

Mr. Rogers's improved miniature Landau is a very well-shaped, well-proportioned, compact little carriage; but, from what we can judge (we have not seen it closed), we think there is not too much space in it for four adults of ordinary size. As to the coach-box, no coachman but a very small one could sit in comfort on it; we suppose that the driver of this miniature Landau must provide himself with miniature legs. We have noticed so many carriages deficient in proper leg room and foot room for the driver—by the way, a great essential to his having proper command over his horses—that we have had some idea of importing a few Mussulmen, who, from their habit of sitting cross-legged, would not require any leg room at all, a position in which we should think it very difficult to preserve the firm seat necessary for driving. After all, perhaps the most simple way of avoiding difficulty will be for coach-builders to provide sufficient for ordinary mortals with ordinary legs.

We need only refer our readers to the drawing to make it clear to them that Mr. Rogers has produced a very pretty little well-finished carriage, and has done much towards making the Landau available and consistent as a one-horse carriage.

Mr. Burnett's Exhibition Gorilla Cart or Sleigh. Our business is not with the names which it pleases inventors to call their productions, or we might wonder what a gorilla has to do with a pony cart, or we might, if we knew anything of Lindley Murray and the meaning of English words, ask what particular sort of Gorilla the Exhibition Gorilla happens to be. The "Exhibition Gorilla" is, we should think, a specimen of the genus of which M. Du Chaillu is unaware, and whose existence Professor Owen would call into question with incredulous derision; but, if the name is inexplicable and ugly, the thing itself is exceedingly simple and pretty. A gorilla is certainly not a useful, if he be, which we doubt, an ornamental animal; but Mr. Burnett's cart can boast of the possession of both these qualities in a considerable degree, and we are not surprised at the amount of attention it receives from the majority of visitors to the carriage department of the International Exhibition; for a description of the carriage we cannot do better than refer to Mr. Burnett's own; it is short, and to our mind quite truthful, although perhaps the unsophisticated will be puzzled to understand how, as is stated, the carriage "will ride two or four persons without the least motion of the horse:" this rather reminds us of the boy who had been crammed for examination, being asked the principal mechanical motions, declared them to be "the rotary, the lateral, and the stand still-motion."

The design of this carriage is exceedingly good, and the finishing of it tasty and taking, albeit the colours are what

might be termed gay, a matter of minor importance, and quite excusable in a show carriage; and the contrivance for counter-acting the knee motion of the horse as simple and ingenious as it is effective and original, and this, with the very simple method of adjusting the balance of the carriage to two persons or four, proves that Mr. Burnett is quite aware of the requirements of these carriages, and that he possesses in an eminent degree the mechanical ability to meet them. The manner in which the carriage can be used as a sledge is a recommendation in this country: considering that we have on an average only about seven days in seven years when it could be used, it is not worth while for gentlemen to keep a sledge by them, although the manner in which they seek them when their use would be possible, proves that they have a fancy for this kind of conveyance: thus a desideratum is secured which has hitherto been overlooked. In the carriage exhibited, the place of the runners is supplied by a light iron stay, which could be easily changed for an iron more adapted for the purpose of gliding over snow or ice: when this change, which might be made either as a permanence or at pleasure, is effected, the possessor of these little carriages will, by "merely taking off the wheels," be saved the fruitless trouble of making the tour of coach-makers' shops, making a demand about as likely to be met as if they were in quest of a chariot *à la Pharoah*.

The ease, lightness, appearance, convenience, and cheapness of this little carriage will, we have no doubt, cause it to become amongst a certain and numerous class of carriage-keepers a great favourite.

FOREIGN CARRIAGES.

THE specimens of coach-building exhibited by our foreign fellow-craftsmen display, in a high degree, all the excellencies which impartial observers must be ever ready to grant to them, being conspicuous for the great attention given to details in finish, and the scrupulous care with which all the minor matters of convenience, such as handles, steps, &c., are contrived to meet the requirements of the delicate, luxurious—we will not say fastidious—while they manifest as strongly as ever a disregard for the important consideration of lightness, the principal one with us; a foot or two of length, a half-hundredweight or so of iron appears to be of no consequence to our foreign friends, of whatever nation they may be. They are for the most part bold in outline, gorgeous, if not always tasty, in finish, but they always strike us as being intended more for state and luxury than for practical utility; they indicate, we think, the difference which exists between continental and English keepers of carriages. The former appear to wish to make a gorgeous progress from one place to another at short distances, with very little regard to time or waste of horse power: with the latter the object generally is to get about our overgrown city in the shortest time and with the least expenditure of horse-flesh. Nothing gives us a more vivid impression of the size of our cities, and the activity of our aristocracy as compared with

other nations, than a close survey of the carriages. Nothing but London's dimensions and London's climate, or rather weather, could have brought about London carriages; and we could propound a theory, were we not under orders to be strictly practical, whereby a not inaccurate idea of the habits and general characteristics of a people might be deduced from correct data as to the carriages which they used. The car of Boadicea and the miniature brougham of the ardent man of business are exceedingly strong and, we consider, intelligible indications of the general characteristics of the two epochs which produced them. The construction of carriages is a national, not an accidental affair. You find among the Alps carriages of miraculous conformation and capacity for retaining their equilibrium, and better adapted to what is required of them than any thing we could find in other localities, be they ever so celebrated for the description of manufacture which we are treating of. The attempt to introduce what our neighbours call the "tö-car" into France was little else than a failure. Carriages differ from many other things in the fact that what is required of them can only be found in those constructed by builders who have an intimate and perfect knowledge of the characteristics of the localities they are to be used in, and characteristics of the people for whom they are destined. The truth of this remark, as far as localities are concerned, is sufficiently evident in various parts of our own country. Before railways had brought us all so close together, an experienced coach-maker had only to see a carriage of provincial build, and he would seldom be mistaken in deciding from what country or town it came; and this remark will apply to a great extent even now.

Of foreign coach-building we have some notable examples, and have seen something from unexpected quarters calculated to excite a great deal of surprise and not a little admiration. We have them from Paris, Brussels, Antwerp, Bruges (dreary, dreamy, old place! we should as soon have expected a vehicle from the Georgium Sidus), Mecklenberg Schwerin, Milan, the Hague, Amsterdam, Haarlem, &c. We have promises as yet unfulfilled from Gröningen and Hamburg. We have carriages from Stockholm and Gothenberg, while St. Petersburg and Warsaw have highly distinguished themselves. New York and Ohio, U.S., despite the lamentable state of affairs, have contributed specimens of their "daddy-long-legs" style of vehicles, on regarding which sober-minded and substantial-bodied people open their eyes and exclaim, "Are they safe!"

There can be little difference of opinion as to whether any marked improvement has since 1851 been made in foreign carriages. This improvement is especially to be noted in the ironwork, which is in most cases, to our minds, forged and finished in a most commendable manner. This is especially true of a C and under-spring Cab Phaëton from Offenbach, which is to be found cast out, as it were, into the western annexe. The whole of the ironwork on this carriage is left bright, and, whether we regard it with respect to its nicely-adjusted proportions and relative strength, elegance of form and elaborate finish, we must be constrained to award it the highest praise, and, so far as it is possible to form an opinion

from such an inspection as we could make, we are inclined to think that it is as sound as it is beautiful.

The Netherlands carriages also have some very fine ironwork, the forging of which is equal, if not superior, to anything exhibited in this class. Our continental friends generally, perhaps, may be said to sin a little on the side of clumsiness, but nevertheless they show themselves masters of their craft. We have only to look at the proportions and form of this ironwork to feel, not only that "The smith, a mighty man is he, with large and sinewy hands," but moreover he has given good proof that he has no mean order of brains to direct them. Of the French carriages, that from Lille has some noble ironwork, and those from Paris are distinguished by the attention that has been bestowed on the interior fittings; the looking-glasses, drawers, &c., are excellently arranged, the inside handles well adapted for delicate hands, and we would especially direct attention to the novel and efficacious means of opening the doors from the inside, invented and patented by M. A. Desouches, fils, of the Avenue des Champs Elysées, Paris; it is a sort of lever, with a spring so arranged that by the slightest pressure of the inside handle, it pushes the spring bolt out of its catch, and releases the door. There are two disadvantages connected with this arrangement, which we think of such importance as to demand notice. In the first, to accommodate the apparatus, the fore pillar is cut away and weakened just in that part of it where strength is of vital importance; to counteract this sacrifice of strength, the fore pillars will, we are disposed to think, require extra iron or steel plates; and this is an evil of some consequence amongst a people who, like ourselves, attach so much importance to every pound of extra weight. Secondly, the door opens with such facility that children would not be safe in this carriage; this insecurity may be provided for by safety bolts; but the misfortune of safety bolts is that they are generally found to be neglected when danger is at hand; but we may have an opportunity of speaking of this clever contrivance at a future time, previously to which we will examine it more minutely.

A very handsome C and under-spring coach will we imagine attract, to a great extent, the English coach-makers who visit the French Court. We may also mention a peculiar wheel made of steel, and contrived a "double debt to pay" by acting as a wheel and a spring at the same time. We should not be inclined to prophesy a very general adoption of these wheels; they might do very well for the gentle promenade in the Bois de Boulogne, but for hard or quick travelling over heavy roads they would in our opinion be useless; the elasticity of the wheel would, we should think, greatly interfere with the momentum which most carriages acquire when once on the move.

The carriages from Brussels are worthy in every respect of the well-known firm from whence they come, as they possess all the excellencies and some of the faults of the French, and the finish is very superior. The cane-work on the sociable (if we may call it so) is the best imitation we have seen: whether, considering it is stamped leather stuck on to the painted panel, it would stand any great amount of wet we should like to examine it more closely before we determine. Of the contribu-

tions three in number from this miniature Paris, as it has been not inaptly termed, the Sociable, as a specimen of coach-building, has the highest claims to our admiration. The general contour is a little strange to English eyes, but the lines are so well harmonised, the proportions so well preserved, and every detail so carefully, neatly (we had almost said daintily) finished, that the carriage would appeal successfully to the inherent good taste of any one from anywhere, be it never so much out of unison with the forms which custom has made familiar, and which we admire on that account rather than because any fixed principle of taste is involved.

The D'Orsay is out of date and altogether too heavy a matter to be lightly treated of. The shape of the body is defective and ungraceful, the boot contracting as it does with a double sweep, adds immensely to the weight in appearance, while no advantage is gained, and with respect to the actual weight of the carriage we should consider it excessive, and that the ironwork in many, if not in most parts or altogether, might, with safety and advantage, be reduced by one-fourth if not by a third; great care, it is evident, has been taken with it, both in design and execution, but, considering steel is used as a strengthener, it is out of all reason heavy. We shall be told, no doubt, that we have no idea of the very trying nature of the Belgian roads from their being paved with large stones rough and uneven as an ill-conditioned and half-neglected stable yard, but what little experience we have had (which is quite enough) of the clatter, and jar, and jolt of these paved highways would lead us to the opinion that in building carriages for such roads especially should the use of masses of iron be avoided; hence a perch partly of wood and partly of iron or steel would be by far the more desirable, and for a carriage, as in the present case a great deal of compass is not required, the use of wood greatly commends itself, and combinations of the requisite strength might be arrived at without greatly or materially increasing the bulk. The use of iron exclusively in perches should, as a rule, be only adopted as an expedient when a great amount of compass is required, and, judged from this point of view, the introduction of their use for Broughams by Mr. Hooper was a valuable and intelligent alteration; the same idea applied to a D'Orsay becomes quite another affair, but, setting this on one side, we may remark that the use of steel ought to result in diminished weight and bulk; in this case it appears to have been used to strengthen ironwork which was of itself sufficiently if not unnecessarily strong.

Although the lining of this carriage is exceedingly rich and well executed, the silk is not the happiest which could have been chosen for the purpose; it is ill adapted for carriage uses, as shade is very disastrous to its lustre and colour. The roof in quilted silk has an exceedingly heavy appearance, and will, we should imagine, give the riders in the carriage a vague sense of being under something which is threatening to fall on them. Utility is often a test of beauty. The ugliness of a stuffed roof is to our minds almost as palpable as its inutility; such roofs can only be useful in railway carriages as a provision in case of accidents.

Of the leather-work we can confidently speak to its excellence; the braces are made thicker in the middle than at the

edges, by which means the appearance at the side is diminished, while the strength is increased; but whether what is gained in one way is not lost by the roundness on the surface of the brace is a question on which, although a trivial one, tastes equally good may differ. For our own part we think that flat braces of a uniform thickness have on the whole a lighter appearance, while there are some reasons why they might be expected to do their work better.

We may speak with unqualified praise of the Phaeton exhibited by the same firm as the D'Orsay and the Sociable; it is exceedingly light, graceful, and pretty, the colours well chosen and well put on; the lining and leather-work are executed in the best manner; and it is altogether a very complete and elegant little carriage.

The carving on these carriages is rather elaborate and well cut, but we think it of that intricate nature that there will be great difficulty in properly cleaning it, the fine raised parts which have been left up with so much skill will be in peril every time the carriage is washed, and unless the greatest care is taken the whole thing would soon be spoiled. This sort of carving may do better on the Continent, where it appears to us greater care is taken and more attention bestowed on carriages by servants than here, but we are certain that, all things considered, a plainer style than that adopted in these carriages is the more desirable.

A cranked axle-tree seems to be one of the common necessities of a Brussels carriage; so far as we can recollect, they all three have them; we mention them for the purpose of pointing out the very excellent form in which they are made, they are to be commended both for strength and appearance, and they are worthy remark as presenting to us the least objectionable form of cranked axle-trees.

A careful inspection, some thought, and the weighing of many considerations leads to the conclusion that, taken for all in all, the display of carriages from Brussels is worthy of the city which carried off prizes at London, 1851, and at Paris, 1855.

Also in the Belgian court are two carriages from Antwerp, one described in the catalogue as "a calash with double suspension," which being interpreted meaneth a Sociable on lee and under springs. The body of this carriage is somewhat English in its character, the ironwork and general arrangement worthy of closer attention than we could give it in our somewhat hurried survey; the painting is garish, and the ornament a little vulgar, the general finish of detail slightly coarse, but it is, nevertheless, we should think, a good carriage.

Another Antwerp carriage is a calash with nothing very remarkable about it except the head, which is, if possible, rather worse in form than the generality of continental carriages. Why, as a general rule, this part of carriages of continental build should be so excessively ugly we are at a loss to conjecture—is a question which, perhaps, it would be as well for foreign coach-makers to ask themselves. And not only is the appearance of these heads abominable, but they are so constructed that they must be let down before any one can enter the carriage, or the operation must be eminently suggestive of climbing up a chimney.

There is a sombre-looking Clarence from Bruges which appears to be in deep mourning for its own long defunct fashion, which departed this London life some fifteen years ago. Whatever interest this souvenir of the past might have for antiquarians, it has none for us, and consequently we will leave this relic of the dark ages in peace, as we feel that we can say nothing about it likely to interest people who have their being in the year of Grace 1862.

There is a state Chariot from Milan; its presence here, we believe, is to be accounted for by certain political events having sent it into the market, the great personage for whom it was built having no further use for it; but it is much more interesting as a page of history than as a specimen of coach-building, for, although highly decorated, it is badly constructed, and indifferently finished.

There is another state carriage from Berlin, which strikes us as rather an uncivilised sort of affair. The decorations are commonplace and coarse, and we could scarcely find any portion of it to which the term elegant or choice might be applied. The abundant ornamentation lavished on this carriage but serves to aggravate and render more apparent the general vulgarity and want of taste which is everywhere so manifest. The door-handle is perhaps the only good thing in it; it is an eagle with outspread wings, in silver, placed in the centre of the door, not in the shutting pillar, as is usual. We noticed some others of the foreign carriages with the handle so placed, and it is a plan much to be praised so far as ornamental purposes are concerned, and, for all we know, capable of adoption with small expense, and in such manner as not to be likely to get out of order. The Russian carriages are worthy of the closest attention, and will well repay the trouble of getting at them, which, from the positions in which they are placed, is no very easy matter. There is a Landau with one of the best-shaped bodies we ever saw on a carriage of continental build. The ironwork—whether we consider it with respect to the nicety with which the strength of each portion is adapted to what it is required to do or likely to have to sustain, its many ingenious details, which show such a careful regard to the appearance, convenience, and security, or the general conformation and finish—is worthy of high commendation. We noticed especially a contrivance for shortening the slat of Landau to bring it away from the rumble, as a most simple and efficacious means of arriving at an end greatly to be desired. The hind slat of an open carriage interferes considerably with a rumble, and often renders it necessary to place it unreasonably far off from the body. We noticed also that T-shaped iron was used for the perch, and have no doubt that by its adoption the strength is greatly increased, while the weight is diminished.

The Swedish carriages do not call for special notice. We cannot but say there is a certain amount of originality about them, which is to some extent gratifying; but as carriages, judging with respect either to elegance, utility, weight, or durability, we feel that the less we say of them the better. We may remark, however, in passing, that the ironwork and springs are generally good, and many of the details of the former may furnish to coach-builders some useful hints.

Germany does not in the coach-building world take the position we might expect her to do, whatever she may in any other. The Berlin and Vienna carriages are to our thinking all but destitute of one redeeming feature; and there is a curiosity from Mecklenberg-Schwerin, called in catalogue "Carriage with swan's neck, and without axle-beam and box seat."

The carriage, as the puffs have it, "must be seen to be appreciated;" the body is an enormously wide cup-shaped one, without a head, and is attached, by a single branched iron of gigantic proportions, to a sort of scaffolding, which serves as a fore carriage; this scaffolding or fore carriage appears to be constructed with a view to put the horses as far away from their work as possible; and the vehicle appears to be constructed to ensure the greatest amount of unsteadiness. All these little facts and appearances go to make a carriage which (as the novel-writers say when words fail them) may be more readily imagined than described. There are many matters among the foreign carriages of more or less importance which we might point out, but, as we shall, we hope, have an opportunity of speaking of the more notable specimens individually, we close our remarks on foreign carriages for the present.

We need scarcely say anything of colonial carriages; indeed, there is not much to say anything about. We saw an immense headed (what we should term) Dray from Australia accompanied by a curious example of the English Pilentum, Americanised; but there is nothing to lead us to expect that any large importation of colonial-built carriages for home use is likely to take place. There is a carriage exhibited by a Melbourne firm, but, from its having been built at Stirling and being placed among the British carriages, we scarcely know how to regard it, as the exhibitors wish us, as a specimen of what can be done in Melbourne. We shall have to notice this carriage, which has some peculiarities worthy of remark; meanwhile we will close these few words on the foreign and colonial carriages by recording our conviction that we look forward without apprehension to the verdict which the world will pronounce as to the relative merits of English and foreign coach-builders, and we do not fear but that it will be admitted on all sides that we have something more than a natural partiality towards our countrymen to justify us in saying that, so far as this branch of manufacture is concerned, "They have held their own."

JURORS OF THE CARRIAGE DEPARTMENT, CLASS 6, OF THE INTERNATIONAL EXHIBITION.

THE following gentlemen constitute the Jurors of Class 6:—General Morin, Chairman; Viscount Torrington, Deputy Chairman, George N. Hooper; Secretary, Jos. Holland, H. Holmes; J. W. Peters; and H. Tresca, Professor of Mechanics and President of the French Institute of Civil Engineers, Associates.

THE INTERNATIONAL EXHIBITION.

OUR ILLUSTRATIONS.

THE carriage exhibited by Messrs. Holmes, described in the catalogue as a "Park Sociable," with improved Landau head, upon C and under springs, of which we furnish a drawing, is undoubtedly one of the best-built carriages in the Exhibition. Its excellencies are so striking and so numerous, its defects so trivial and so few, that very little need be said of it.

It is a full-size pair-horse carriage, a thing which seems to be going out of fashion, now that everything in the carriage way appears to be growing "finer by degrees and beautifully less," until it would appear that we are acting out the paradox that carriages are very good things, but the less we have of them the better.

Although the body is a first-rate specimen of workmanship, it is to the carriage, the ironwork, and general arrangement that the greatest praise is due. The whole of the ironwork is burnished bright as silver, and, on a somewhat close examination, we could not discover a speck or a blemish; and not only is it well made and highly finished, but, so far as we are competent to judge, we do not hesitate to say that the requisite strength of every portion of it is nicely determined, and while it is nowhere overloaded it has no weak points to place its security in question. We would particularly indicate the front loop, a perfect specimen of coach ironwork. The perch is a fine piece of work, both as to forging and finishing. The carved scroll ends deserve notice, and lead us to suppose that either the smith was a carver, or the carver a smith.

The springs are made and finished in the best manner, but we could wish that the braces did not form so acute an angle over the eyes of them, as they (the braces) are disproportionately short for such a carriage, and it is to be regretted that a little more rake or slope could not be got on them somehow or another. From the fact of the head dropping, the loops have to be so long as to leave little room for the brace; and even now, whether the head will touch the hind one is a matter that a full load and heavy work up hill will determine. If we did not suppose it had been thoroughly tried, we should have our doubts. Whether avoidable or not, there can be no question but that the comparatively upright position of the braces diminishes to no trifling extent the grace and elegance of the carriage.

The forms of the irons and leather-work of the coach-box, the front wings, and dash-iron, are exceedingly happy, and may be said to be not only among the prettiest, but the most original things among the carriages. There are many other details of which we might speak in equally glowing terms. With respect to the general proportion, we submit with all deference that it would have been nearer perfection if the hind wheels had been higher. It may be said that, if the hind wheels had been higher, the difficulties of leaving the head clear would have been increased, unless recourse was had to a cranked axle, to which there are many valid objections; and there are some coach-makers who will not use cranked axles. For our part we consider that, for a dress carriage, or one for display such as this, everything but safety should be sacrificed

to proportion. Anything animate or inanimate, in which the proportions are accurately balanced, arrests our attention at the first glance, and pleases us the more the longer we regard it. The increased hind wheel would have diminished the apparent size of the body, and thus another step would be made in the direction of true proportion for the body. Whether from the drop in the doorway causing the depth to be too great for the length, whether it really is rather large, or whether fashion has schooled our eye with "clipper" shapes till we have lost our faculties of appreciation for the more severe styles, we are unable to say, but certain it is that the body of Messrs. Holmes's very noble carriage strikes us as a little clumsy; and if this be anything more than a fancy on our part (which we are far from positively asserting), an inch or two on the hind wheel would do much to remove it, while the alteration would, we are convinced, greatly improve the general character of the carriage. Of course this is greatly opposed to the views of those who believe in the equirotal principle; but whatever may be said of that principle with respect to draught, be it from some fixed law of taste, or be it that our eye is unaccustomed to four wheels of the same height, we are disposed to think that carriages so constructed must sacrifice all pretension to elegance and true proportion.

Moreover, with the wheel a little higher, the hind springs might, without damage to appearance, have been put back a little, so that the hind brace, now, as we have said, disproportionately short, could be lengthened to the great advantage of the carriage in all respects. Before leaving this carriage, we may remark, more as an indication of the excellence of the work, which allows of such trivial fault-finding, than as attaching any serious importance to the fact, that the bottom plate of perch, is fixed at the fore end with a screw, so far as we could make out, tapped into the perch. The piercing a hole in the bottom of the iron perch is, to say the least of it, undesirable, and might, we do not say would, materially affect the safety of the carriage. It is patent to all who have to deal with iron how much its solidity and strength is diminished by the slightest mark or hole; hence the drilling into a perch on which so much depends should be, as a general rule, avoided, or only resorted to when no other expedient is practicable, which last cannot be said of the present instance. We may mention also, as an example of the near approach that may be made towards perfection without attaining it, that the aft-side front brace is nearer perpendicular than the near one; not a great deal, it is true, but still quite enough to be visible. While we mention these defects, we feel that they are of so unimportant a character that they would not have been noticed had they not been surrounded by very high excellence in all other respects. Minute criticism generally indicates great merits in the thing criticised, and we may always comfort ourselves that, when people cavil at trifles, it is because they have nothing more important to complain of.

The body is a somewhat heavy-looking specimen of the "Elcho" shape, the principal panels painted in imitation cane, the other parts blue; the choice of the picking out and fine lining is not a triumph of pure taste, and the broad line of cream

colour on the centre of the moulding, accompanied as it is with fine lines of light blue and pink and white, deteriorates greatly the general effect, and the lines altogether serve to aggravate the objection often made to carriages of this form, that is, the presence of too many lines. It must have been remarked by many of our readers that, beautiful as these carriages appear when the eye becomes accustomed to them, at first sight (especially to unpractised eyes) the numerous lines produce an idea of confusion, and the style of painting adopted by Messrs. Holmes in this instance is, to our minds, far from being likely to mitigate this defect—is just of that nature to make the confusion worse confounded. We speak with all diffidence on this matter, as it is one on which diversities of opinion and fancy may be so wide and so manifold, and which leaves so ample a scope for individual tastes, that the very thing which, in our estimation, aggravates an evil, may have been resorted to as the result of much study to counteract it. It need scarcely be remarked that the painting is done in a most superior manner.

The lining of rich silk, with fleur-de-lys and the shamrock, rose, and thistle, wrought on a light blue ground, is exceedingly pretty; two small rolls of what, for want of a better term, we should call scallop-work, which go along the elbows and top of the back squab in a bold sweep, are admirably done, and are decidedly a great improvement on the old style of trimming, although they may be objected to for an open carriage, as likely to retain the dust; altogether, if the much-to-be-regretted pink in the lace did not offend our ideas of pure taste, and, what is of more consequence, spoil, to some extent, the blue of the silk, we should be inclined to consider the trimming of this carriage perfect. Of the leather-work, a not unimportant item in the finish of a carriage, it may be said to be unsurpassed even amongst the foreigners, who have always been remarkable in this respect. Altogether, we have no hesitation in expressing our sincere and thoughtful praise of Messrs. Holmes's exceedingly handsome carriage (all things considered) as one of the most perfect specimens of carriage-building ever constructed; and, whether regarded with respect to its design and mechanical arrangements or the superiority of its workmanship, it is a work of which the foremost among carriage-builders, whoever he or they may be, might have just reason to be proud.

We do not know that the illustration of the Step-piece Coach by Messrs. Thrupp & Maberley calls for any comment; the general outline is perfect, with the exception of what seems to be a slight straightness in one part of the hind elbow, whether the fault of the beader or the coach-maker we are unable to say. It is painted a splendid blue, picked out light blue, and fine-lined white, varnished in a very superior manner. The squares on the mouldings are singularly sharp and perfect, the painter having evidently bestowed great care on the corners, a small matter which in some of the best carriages does not meet with the attention it deserves, but nevertheless one of the trifles necessary to perfection. The bead round the quarters and back about an inch from the roof is perhaps a little objectionable, but by finishing the leather under it is possible to get a surface on the panels that can never be arrived at when they are covered, so

that it is a question between a fine brilliant surface with the bead and an indifferent one without it: for our own part we should be inclined to choose the former as the builders of this carriage have done.

The carriage is hung on common elliptic springs in front and 5 springs behind. We could have wished that the unusually long half-spring or rather in this case three-quarter had been secured in a more mechanical way. Unless we are greatly in error, the three bolts have not only to withstand the weight of the body acting on a long lever, but also the pressure of the spring plates themselves. If there be any means of taking the force of the plates off the bolts, all we can say is, it is carefully concealed with an ingenuity of which the result is scarcely worthy. We noticed also that, although the carriage is in most respects well finished, the span iron and step bolts are left in a very rough state.

If a long course of visits to the International Exhibition had not prepared us for anything, we might be surprised at the steps with which the builders have thought proper to disfigure this truly elegant carriage; how, after producing such an assemblage of graceful lines as the body displays, they could suffer the effect to be marred by that dreadfully old-fashioned pot-hook thing of a step, is one of those things which baffle comprehension: perhaps the step is placed there to enhance beauty by contrast, or possibly for the same purpose for which music composers insert discords; whatever the reason or intention, the result is to our minds anything but satisfactory, and we felt that it would be comforting to our sense of Coach-building propriety to have them taken off at once, and it was only our ideas of *meum* and *tuum*, or rather the fear of somebody else's ideas on the same interesting subject which prevented us indulging in the desired consolation.

The lining is of choice and dainty drab and in all respects faultless; in fact, the carriage altogether is a very superior specimen of the step piece shape carriage, perhaps the most pleasing, and certainly not the least graceful style of our time, a style likely yet to hold against the powerful claims of many novelties, however excellent they may be or however fashion may favour them.

We shall, we are sure, give no reasonable offence if we impress upon those of our readers who may happen to be exhibitors, the great importance of securing, as the attendant of their Carriage in the Exhibition, a person qualified by his general attentive and courteous behaviour to visitors, to perform with satisfaction to the public and advantage to his employers, the not unimportant office which he has to fill. For our own part we have certainly little reason to complain in this respect, but there have been, nevertheless, instances of rudeness and incivility, which have been far from likely to advance the interests of the firms represented, or to elevate our national character for politeness and good breeding. We may mention as a case in point the attendant of the carriage we have just noticed; with this one exception we are constrained to acknowledge the general urbanity of those attendants in the Carriage Department with whom we have come in contact, and we hope that a firm ranking among the leaders of the trade, and distinguished for their uniform politeness, will not long continue to be so seriously misrepresented.

PARISIAN OMNIBUSES.

IN a rather out-of-the-way corner of the French department of the International Exhibition, barricaded round by other large objects, and further rendered obscure by the excessive dimness of the light which struggles into the court, is an omnibus belonging to and sent by the General Omnibus Company of Paris. In its conformation, construction, and colouring there is nothing *outré* or very special about it to challenge immediately the attention of an observer; but there is, however, a solid economic elegance about it, characterised by great simplicity, and a general thorough adaptability to its destined purpose, which make it worthy of attention. The absence of any special glitter is accounted for by the fact that it is not simply a show vehicle, constructed purposely for exhibition, but an ordinary omnibus, built in the workshops of the company for daily service in Paris, and which will probably, in October next, when the doors of the Kensington Fair shall be closed, convey the *bourgeois* of the gay City from the *Madelaine* to the Bastille, to the *Porte St. Martin*, the *Chateau d'Eau*, the *Cirque Napoleon*, and the other spots along its destined route.

This sample omnibus is offered to our notice as a fair average specimen of the workmanship turned out from the *ateliers* of the company, and of the conveyances placed at the disposal of such members of the Parisian public as have fifteen centimes (equivalent to an English three halfpence) in their pockets. It is large, roomy, well ventilated, and well lighted, neat, and quietly pleasing to the eye, and commodious for use. The following are the dimensions in French measure, with their approximation in English feet and inches:—

	Metres.	Centimetres.	Feet.	Inches.
Length	3	20 or about	10	6
Height of body	2	70	"	8 10
Breadth of body	1	70	"	5 7
Breadth from wheel to wheel	1	65	"	5 5
Diameter of fore wheels	1	15	"	3 9
Diameter of hind wheels	1	55	"	5 1

It is constructed to carry twenty-four; in the inside fourteen, and on the *imperiale* or roof ten, which number it will certainly hold very comfortably. There are no front or box seats save that occupied by the driver, who sits alone in his glory. The roof is railed round, and is ascended by railed steps, and the back of the roof-seat is raised to such a height as to prevent the discomfort of having to support your neighbour's back, as is not uncommon on the "knife-board" of many London omnibuses. There is no door, by the dispensing with which greater facility of ingress and egress is secured, and which is the less requisite as the majority of the Paris omnibus routes are very short, none of them extending to five miles.

The woods used in the body are oak, ash, elm, and Dutch white poplar, with mahogany and French maple for the ornamental portion. The spokes of the wheels are acacia, and elm is used for the felloes and naves. The fore-carriage is framed of ash.

The panels of the body are of sheet iron, of one-twentieth

of an inch in thickness, and the tires of the wheels are wrought of the metal of old locomotive wheels, and the springs of double-wrought St. Etienne steel in from seven to ten plates, according to their position.

The omnibus is painted a pale delicate yellow picked out with black, and gold lettered, and is not distinguished by any fancy name, but simply bears on its side the letter E, with above and below it the names of the termini of its route—"De la *Madelaine* à la *Bastille*"—with the names of intermediate places in neat letters beneath the windows. The yellow colour employed is Spooner's; the other and the varnishes are French, although it is customary to use English make for the last coat. The cushions are covered with Elbeuf cloth and stuffed with hair, and at the side of the entrance, and close to the conductor, is a numerical indicator of the passengers carried.

It is on the whole a very excellent omnibus, and worthy in many respects to serve as a model for such constructions. There is but little novelty about it; and because there is so little, and it is but an ordinary "bus," it does not, and will not probably, get very much attention. Had it pretended to some impracticable arrangement of passengers, or had it flamed out in fiery colours and blazing appointments, it would perhaps have obtained more notice. As it is, however, it is a very convenient serviceable vehicle, and its quiet neat colouring favourably contrasts with the vulgar, *bizarre* outrages on good taste with which many of the London conveyances are so barbarously disfigured.

The system of the Paris Omnibus Company is very comprehensive, and, whatever may be its demerits, it has at least the merit of completeness in all its details, while under it are offered to the public three very palpable advantages—uniformity of rate notwithstanding the distance, lowness of fare, and the privilege of correspondence. The never-varying fares are 30 centimes or 3d. for the inside, with the right to pass from one omnibus to another, and 15 centimes or 1½d. for the *imperiale*, but without the privilege of correspondence. The short lines of the Paris omnibuses render such an arrangement financially practicable. The company has thirty-one different routes, of which only

10 exceed 4½ miles in length.

14	"	3¾	"	"
4	"	3½	"	"
2	"	2½	"	"
1	"	2	"	"

Our London routes average much longer distances, owing to the greater extent of the city and its suburbs.

The company, with very questionable economy, construct and repair all their vehicles, which engages the services of from 500 to 600 artisans of different kinds. Their plant and machinery include 40 depôts, a saw-mill, a steam-hammer, 22 forges, with an endless variety of wood and metal working machinery driven by steam power. Their rolling stock consists of 800 vehicles, which have of course to be kept in constant repair, and the places of the "incurables" and "condemned" supplied with new constructions. In the year 1860, besides

the ordinary repairing work, 200 new omnibuses were launched into the streets. The vastness of the company's operations are further evidenced by the fact recorded in the official books, that, in 1861, the enormous number of over 81,000,000 of passengers were carried. They have more than 7,000 horses in the stables, and the statistics of 1861 show that in round numbers 28,000 miles a day were got over by them in the whole, each omnibus running about 60 miles a day with 12 horses, or 10 miles a day for each horse.

In the Parisian omnibus system we see many things which are deserving of imitation, but there are doubtless evils inseparable from a scheme so nearly approaching to an absolute monopoly which crop out in practice. There is decidedly much in our London system which needs reform; many of the conveyances are dirty and unkempt, ill ventilated and crazy, while their aspect is unpleasingly distasteful to a critical eye, and this unnecessarily, since at the same cost the very opposite results might be obtained. We are glad to see the promise of better things appearing in the shape of larger omnibuses, more fitly constructed, and a little more gracefully adorned, for travelling, in which lower fares are being charged. They are, however, at present but exceptions to the rule, and we have not, we confess, courage enough to hope ever to witness the adoption of a scale of charges similar to that of the Parisian omnibuses; yet, if we cannot attain to this, much will be gained in comfort by a general improvement in the build and appointment of the vehicles.

NOTABILIA OF THE INTERNATIONAL EXHIBITION.

WE rejoice to know, says our contemporary *The Art-Journal*, that while in a financial view the Exhibition is in a satisfactory, or, at all events, a promising state, as an assemblage of Art-works and works of Art-industry it is an unquestioned success. It must now be considered as a great teacher, with far loftier aims than to gratify, to interest, or to amuse; not only every manufacturer in Great Britain, but every artisan and workman, should there study—should, in a word, there GO TO SCHOOL: he may learn much, no matter what his vocation may be. The lessons he will acquire are such as must not only increase his skill, mature his judgment, and improve his taste; they will enhance his prosperity, and bring substantial as well as enduring rewards.

We trust these truths will have due weight with the leading manufacturers of our country, and that no false economy will prevent their sending from the factories and workshops every man and woman who is in any way employed in the production of articles that may be influenced by augmented knowledge and refined taste.

If thus aided, the Exhibition may answer also in a pecuniary sense; at present there are but faint hopes that a sum will be received large enough to pay all expenses, and retain even a portion of the building. A great effort on the part of those who employ thousands of "hands," every one of whom may be benefited, and will certainly be refreshed, by a visit to the

Exhibition, will avert the threatened evil of a financial deficiency, while amply rewarding the parties by whom the cost is sustained.

We earnestly hope this conviction will be received as a duty, as well as a necessity.

Her Majesty, as usual, has set an example to her subjects; already thousands have visited the Exhibition, to receive instruction as well as enjoyment—at her expense.

The arrangements of the interior have now been finally made; for although occasionally valuable contributions "drop in," the whole of the contributors are understood to "have done their best." Some of the blots have been removed; the nave is rather more decorous than it was in May. But the absence of resolute energy is still apparent there; still the pyramid of pickles deforms one end of it, and the temple of tallow candles the other, with many deformities between. Indeed, a clumsiness of arrangement is apparent everywhere throughout the building. Evidence of what may be expected is supplied at the main entrance, where an elevated statue of the Queen is altogether destroyed by a background which some "botch" has placed there—being neither more nor less than a huge cartoon. Alas! the master mind is sadly missed; everywhere we find proofs of incompetency to order or arrange; there has been no experience worth a rush—in a word, neither head to plan nor hand to execute. End as it will, the International Exhibition will be a memory of miserable blunders on the part of the administration.

Happily these abominations are comparatively lost amid the Art-wealth about them. Moreover, few look at the building, either internally or externally, now; and the general impression undoubtedly is not only extreme satisfaction, but intense gratification.

In spite of gross mismanagement, we have produced a great work: for the honour and glory of England!

JURIES AND THEIR AWARDS.

As the duties of the jurors are by this time completed, and as their verdicts will necessarily have a powerful effect, for good or evil, upon the exhibitors submitted to their approval or condemnation, we offer a few comments touching the difficulties which have beset their operations.

Reference to the lists of names constituting the judicial phalanx will at once demonstrate the fact, that although high social position and an amateur taste may have induced the nomination of a few members in different classes, still the great majority consists of men who have, by practical knowledge, made themselves authorities upon subjects the merits of which they are called on to determine. And even those without the technical qualifications, which are so essential to an adjudication, will bring to the task those (scarcely second in consideration) of unimpeachable honour, free from the bias which, more or less, must influence those intimately connected with or interested in special operations. Upon the publication of the official decision regulating and enforcing the character of the awards, we immediately entered our protest, considering them liable to grievous objection. We specially referred to

the following rule:—"All medals are of one kind; there are no gradations of medals, all being the same. The medals are to be awarded for merit, *without any distinction of degree*, and without reference to competition between producers. It is not the best manufacturer in any particular branch of industry who should alone be rewarded by a medal, but all producers who shall show by their exhibits that their products are excellent in their kind. No exhibitor, however, can receive more than one medal from one jury." We have copied this declaration from the instructions of the Council of Chairmen to the Juries. The determination to give but one class of medal indiscriminately alike to the great success in works involving high intellectual and manipulative power, and to those of the most ordinary mechanical production; for the most cunningly-elaborated triumph of the goldsmith's skill, or the choicest marvel of the potter's craft, and the latest novelty in a vent-peg or a blacking-bottle, we did and do condemn, adhering to our previously-expressed opinion that better no awards at all than such as these. Attempts were, in some juries, made to classify the medals, so that they should carry a varied significance, somewhat in accordance with the relative positions and merits of the works to which they were assigned; but these were officially overruled.

The difficulties of the juries have been much increased by this determination, and their decisions may in some cases be questioned, without due weight being given to the directions which have thus hampered their action. It will be at once admitted that no judgment, however capable and honest, could give entire satisfaction to those adversely affected by it. The producer of the most useless trifle thinks it has, upon some ground, claim to favourable recognition, and will not admit the fact of its worthlessness, though attested by the most competent tribunal.

A novel feature in regard to the awards on the present occasion is, that they will be made known as early as possible during the Exhibition, and the 15th of June was fixed as the date on which they were all to be completed and forwarded by the juries to the Council of Chairmen. Upon their confirmation, the successful exhibitors were to be furnished with the official declaration of the awards, which were to be affixed to their exhibits. Presuming confidently upon the efficient exercise of the judicial functions, the most meritorious producers will be brought still more prominently under public notice, thus further attracted to works deserving approval and patronage.

The adverse influence which this course will exercise upon those exhibitors who have unfortunately failed in obtaining recognition, has been strongly urged against its adoption, particularly in respect to some of the foreign producers. Whilst, however, we admit the truth and force of the objection, we must, at the same time, urge the justice of the position which it seeks to evade.

The International Exhibition is essentially a competitive one. Every intending exhibitor knew this when he entered the lists. The objects of the competition were to obtain exponents of the greatest merit in the various branches of scientific and Art industry, and from this aggregate collection

by competent judgment these were to be determined. Such selection being made, it would be most unjust to those to whose intelligent exertion such successes were attributable, to withhold their declaratory acknowledgment until the objects were removed from public scrutiny and approval. There should be sympathy for the victors as well as the vanquished, and this decision, which we recommended in 1851, we see no reason to modify upon the present occasion.

Those (if there be any) who have missed an award which they may have justly claimed, can rest assured that public opinion will not ratify an erroneous verdict, however high the tribunal by which it may have been passed, and that early notification of the fact will be the most efficient means to remove or lessen its prejudice.

Some incongruities may, and will, be recognisable in regard to the standard of merit which has been adopted in the various adjudications. This will be best explained by the assumption that the exhibits have been viewed in reference to the status of the country from which they have emanated. For this reason (which is well based), awards have been given in the foreign divisions to works which, in the English classes, have not met with any recognition. The difficulties which attend the first establishment of manufactures in localities just venturing upon commercial enterprise, have had due acknowledgment, and their results have been judged, and rightly so, subject to such admission.

These observations of our contemporary are so exceedingly well timed that we have ventured to reproduce them for the benefit of our readers. To one subject, however, of considerable importance to the jurors we will ourselves draw attention. Beyond all doubt the jurors, as a body, have been selected for their known proficiency in their particular departments, and it is not unreasonable, therefore, to expect that their own productions manufactured, in most instances, expressly for this Exhibition should display marks of superiority over the works of the competitors. By a very just rule jurors are not called upon to pronounce upon the merits of their own productions, and they are, consequently, ineligible for an award, but we fancy that the Commissioners might have gone a step further, and after the jurors had made their report, have instituted an examination of the merit of those specimens of workmanship which were not included in the report. Doubtless the great aim of many exhibitors is to do credit to their art, but there is also, we apprehend, in every instance, at least a thought of personal advantage. The general public will look to the awards of jurors as being an authoritative declaration of the relative merits of the exhibitors in the different classes, they know nothing of the names of the jurors, and they will never enter sufficiently into the details of Exhibition arrangements to understand the reason why this and that first-class exhibitor has not been awarded a prize.

We observe that in the carriage department, with which we are more especially interested, certain jurors have taken a step in self-defence, and set an example which might advantageously be followed throughout the Exhibition. They have affixed to their carriage a notice to the effect that "A member of the firm having been appointed a juror, this carriage is not

eligible for an award." We can only express our regret that a similar notice has not, by the authority of the Royal Commissioners, been affixed to all the objects exhibited by jurors. Such a notice would place the jurors in their true position in the eyes of the public, and secure for them the advantages to which they are justly entitled.

THE FIRST AND LAST CARRIAGE.

By this title we do not mean to contrast the earliest and rudest vehicle, mounted on wheels or on rollers, or drawn on its own bottom as a sledge, that in the infancy of civilization was contrived to ease the labour of conveyance, with the most recent and most perfect specimens of the carriage-building art, those beautiful creations of mechanical ingenuity and taste which are depicted monthly in the coloured engravings of this journal. We have spoken of the infancy of civilization, and we might indeed remark that the history of improvement in the construction of carriages is no bad index to the general history of what is usually understood by civilization among all the nations of mankind. For it is naturally associated with the increase of wealth, with a greater refinement of social habits, and with a higher estimate of the value of time, the saving of which, merely regarded as a matter of political economy, is no mean advantage to the commonwealth from the progress of this useful art. Intelligence, prompting the desire of comfort, dispatch, and convenience, created the demand for carriages of improved construction; intelligence, displayed in scientific designs and skilful workmanship, has supplied this requirement; and fresh improvements may be expected so long as these causes shall operate with undiminished force.

But if we propose, on this occasion, to draw a comparison between the *first* carriage and the *last*, it is not with reference to the first that ever was made, and the last that has been or that shall be made, during the aggregate existence of mankind; nor should we attempt, in one or two pages, to take in so wide a prospect as the almost inconceivably great advance from primitive barbarism—"when wild in woods the noble savage ran," and when, perhaps, seated astride the trunk of a tree, he compelled the slave he had subdued in battle to drag him in triumph to the scene of his cannibal feast—to that accomplished degree of modern elegance and harmless luxury which is shown in the aristocratic equipages of the Ring in Hyde Park, in those of the Bois de Bologne at Paris, the Prater at Vienna, or the Corso at Milan. This comprehensive survey shall be left for the learned studies of some condite philosopher acquainted with all ages and conditions of the human race. It is our simpler object to notice what is the *first* and what is the *last* of those artificial conveyances which man employs, or which are employed for him, in the brief course of his individual existence. These may be taken for the theme of a few reflections terminating, perhaps, with a moral, though, if we consider rightly, not a melancholy conclusion. The baby, long before it is able to walk, and as soon as it can sit up without the support of its nurse's arms, rides abroad in a PERAMBULATOR, and this is the first carriage of an artificial

make that is available for the little person's use. The dead man's body, after it has ended the course of human existence upon earth, performs in a HEARSE its final stage to the sepulchral place of rest. Here there is matter for serious meditation, which may yet, without impropriety, be relieved with some not-unpleasing thoughts and fancies innocently gay. It is a blessed thing to meet little children coming along the street, whether mere babes hanging over the nurse's shoulder, or those of bigger growth walking together hand in hand or wreathing their arms about each other's necks, or those of an intermediate size enthroned in their little chaises, and placidly gazing at everything they pass by. Nor is it, to the weary souls of many of us, the reverse of a blessing that we sometimes meet the slow and sable procession of funeral pomp, which reminds us of an assured rest and deliverance, in time, from all worldly woes and cares. The *first* carriage and the *last* carriage may therefore be contemplated, in this paper, not so much from a manufacturing as from a moralising point of view, considered as interesting machines provided to serve the needs of our frail human nature, at the helpless beginning and at the lifeless termination of its mortal career.

The Greek poets relate to us the fable of a monster which infested the roads in the neighbourhood of Thebes, and which was accustomed to stop every passing traveller, and propound to him some puzzling questions, to be answered correctly by him then and there, on pain of being eaten upon the spot. One of the riddles which, to the best of our remembrance, the Sphynx, as it was called, would put to those who were thus forced to guess at their solution, is now brought to our mind by the sight of a child's perambulator. It was an enigma concerning the animal man, and his different means of locomotion at different times. In the morning, said the Sphynx, he goes upon four legs; at noon he goes upon two; in the evening he goes upon three. And so it is; for the infant, sprawling upon hands and knees, moves by the aid of four limbs, in the early hours of life; the adult, walking at noon-day, suffices himself with the exertion of two; the feeble old man gets over the ground with three, namely, with his pair of legs and with a stick to help them on. But the reckoning is very different from this; if, instead of talking about wheels, we talk about wheels, and regard the human animal not as a walking or creeping, but as a carriage-riding animal (which may after all be as good a definition of him as any other that philosophy has yet devised), in that case we may observe that the infant carriage-rider goes upon three wheels; the grown person sometimes upon two, as in a gig or a hansom, but more frequently in a four-wheeler; the latest vehicular journey, after the darkness of night has fallen upon him, is performed on four wheels in ordinary cases; but if a body happens to be somebody, like the Duke of Wellington, for instance, who was worthy of a splendid and sumptuous funeral pageant, this ride may be performed in a six-wheeled carriage, with any number of black horses to draw the deceased public man to death's most private abode. We shall offer some remarks upon the first and then upon the last.

The pretty little three-wheeler, that miniature carriage, propelled with scarcely any effort of strength, by a girl's hand

just leaning on the back rail, is a vast improvement upon the lengthy, cumbrous, unsightly trough, with a handle like the pole of a pair-horse coach extended in front of it, which used to be laboriously pulled forward by the servant maid, clattering noisily over the pavement, and occupying some four yards of space, while she could not possibly see what became of the children so far behind her back, so that they might have been kidnapped and bodily carried off by the gipsies before she could turn round to look at them. In the last dozen years or so the perambulator has everywhere superseded that ugly old-fashioned nursery car, which is now almost as obsolete as the sedan chair, or the old-fashioned hackney coach. It may in some households be preserved from a fond motive of affection, for the sake of those elder sons and daughters now grown up men and women, who, twenty years ago, were daily sent forth to take the air by that identical conveyance; it may be knocked about as a garden plaything by their younger brothers and sisters, or it may be laid up in ordinary in the attic, or in the cellar. But the perambulator, single or double, hooded or open, velvet-padded, leather-seated, or topped with basket-work, is the only vehicle now patronised by the babies of our day. Since it has become so common of late years in the crowded London streets, it has, indeed, provoked the anger of one or two irascible old bachelors, who have sometimes rushed indignantly into the police court, rubbing their shins most wofully, and denouncing the sternest vengeance of the law against parents and guardians of babyhood, for the exhibition of such damnable leg-traps on a public highway. If they had been knocked down and crushed to atoms by one of Bray's heaviest traction engines they could not have made more noise about it. They were preposterous enough to demand that the children's carriages should be turned off the side pavement, at the risk of being run down by the next cab or omnibus that passes, the mere imagination of which disaster is enough to fill any mother of a family, and every father who has "feelings as such," with horror and consternation. On the other hand we are bound to admit that the abuse of perambulators in cases which have now and then occurred within our personal observation, is an aggravating thing for pedestrians, and no slight public inconvenience. They may be all very well in the quieter streets and squares of genteel districts in London, or amidst the comparatively sparse population of the suburbs. But we have met a strapping lass, whose red cheek and frowzy look of rural health told that she had recently been imported from the country, where in broad lanes and open field paths one may straggle across the vacant thoroughfare without the slightest molestation—we have seen that girl, sir, driving a double perambulator full of babies right down Fleet Street hill, through all the bustle and the traffic of two or three o'clock in the afternoon, and neither she nor the little two-year-olders in her charge took the smallest heed of all the hurry and confusion around them, while in the roadway there was a protracted "block" of carriages, extending from near Temple Bar to near the Old Bailey, up and down the opposite hills, and stopping the movement of, as we may count them, twenty or thirty omnibuses, a score of luggage-vans, ten brewers' drays, a dozen neat broughams from the West End, fifty hansoms with stock-jobbers, attorneys,

and merchants, clerks, and other men of business, hastening, if they could, on their way to the City, besides half a hundred baggage-laden cabs all bound for the London Bridge Railway Station, and a certain number of market gardeners' spring carts returning from Covent Garden—while this motley mass of vehicles was hopelessly obstructed in the roadway, the babies' equipage on the side pavement sped along with uninterrupted success. It thrust aside the whole column of foot passengers ascending the hill in a contrary direction, and it took the wall of everybody, by the pedestrian rule of the right hand side. It galled the kibes of more than one dignified and portly gentleman who was pacing too slowly down the hill. It stopped at No. 85, where the girl's eye was captivated by *Punch's* cartoons exposed to view in the window of his shop. She stood there a few minutes, and seemed to be trying to make out, without much help from A B C, what could be the meaning of a picture of Mr. Disraeli in the shape of a magpie perched upon the telegraph wires. People had to make a circuit to avoid being entangled in her perambulator, as they might have been obliged to walk round her mistress's crinoline. The blessed infants, staring up at the clock of St. Bride's Church, both sought and found a temporary solace in sucking their thumbs, which is pretty much the same to them as smoking a cigar is to those of maturer age. No policeman was to be found between St. Paul's and St. Clement's who might have warned this dilatory young person to move on. At last there was a pleasant-looking gentleman who had almost tripped over the machine in his hasty progress, and who, smiling as he regained his balance, quietly removed it out of harm's way. He good-humouredly took the hind rail from her hand without saying one word, and trundled it up the paved recess at the foot of St. Bride's Church steps, where he left the whole caravan, and so did we. It is a question if she has ever recovered the open-eyed and open-mouthed surprise with which she resented this sudden meddling of a stranger with her own particular charge. But she was sturdy and strong enough to have forced her way through the densest throng of people in London, clearing the ranks of the foe like Boadicea with her chariot wheels. She was quite capable of going on at the swiftest pace up Ludgate Hill and through Cheapside, till she ran over the toes of the Lord Mayor in front of the Mansion House, or even of the Bank beadle on the opposite side. With that force of infantry she would go anywhere and do anything, putting forward their tender innocence as a stalking-horse for her troublesome incursions. The Aldermen magistrates would not have found it in their paternal hearts to inflict any fine upon her for such an offence. Make way for the Baby! Baby's carriage stops the way!

Perhaps it is in the Regent's Park or in Kensington Gardens on a summer afternoon that the earliest experiments in coach-driving may be watched to the greatest amusement of the lookers-on. Where the children have once got upon the soft green turf, where gymnastic exertions are no longer forbidden by the fear of a tumble, those about four years old may be seen making the funniest efforts to put the baby's vehicle in motion. Not being tall enough to reach the back rail, they will sometimes, in their pretty ignorance of rotatory mechanism, catch hold of a wheel

and tug away alongside the carriage, till it is very nearly upset. The nursemaid, of course, is either gossiping with another girl of her acquaintance, or ogling the volunteer rifleman who struts by in his new uniform, stiffened up with a tolerable imitation of martial pride. There is a sturdy little fellow in very diminutive knickerbockers who has been hauling away on this mistaken principle, till he is very red in the face, with the amiable endeavour to give his lesser brother a ride. At last he has discovered the error of grasping the wheel, and now getting in the rear, he strains with uplifted arms and butts with his curly head against the vehicle, till it moves on for a yard or two, and baby crows in triumph, flapping its tiny fist upon the apron, and exulting to travel so far away from its inattentive nurse. But presently, as the carriage runs a little too quickly over the smooth grass, that brave little man behind, who has overbalanced himself with excess of energy, loses his hold and falls down upon his nose, but with nothing to cry for, no worse damage than a few streaks of colour from the moist verdure on his clean white collar and his chubby round face. Then he gets a little scolding, and a little slap, which he may cry for if he will, after which two small sisters lift the apron and seat themselves at the bottom of the perambulator to play with the baby's feet, or otherwise tease it with their caresses, till Mary Ann, spying him she keeps company with, yonder, waiting under that clump of trees, thinks it is time to shift the encampment, and the infantine caravan is set agog once more. A very shocking story was current in the hot summer month we had two or three years ago, about one of these perambulators in Hyde Park being met by a medical gentleman, who just looked in passing at a couple of babies there laid apparently asleep, and then gravely accosted the nursemaid with, "My good girl, I suppose you're not aware that both those children are dead?" and so ran the tale (which we believe was purely mythical), that those two delicate blossoms of humanity had in one moment been smitten and withered under the rays of the scorching sun. There can, however, be no doubt that fatal injury may be done by exposing an infant's head to the glare of sunshine or to the cold wind upon the open seat of a perambulator; and it is therefore, desirable that this carriage should always be furnished with a hood. A better support for the head, when the gentle motion and rumbling of wheels has lulled the baby to sleep, appears to be requisite, for it slips off the upright leather cushion behind, and often hangs in a very distressing manner over the side of the carriage. It might be possible to contrive some means, as by an elastic band, of holding up the child, and pillowing its head upon a soft cushion behind hollowed for its reception, and so attached as to be shifted according to the size of the child and the posture in which it lies; or something of a hammock form, on which the upper part of its body could rest, might be suspended for its accommodation when inclined to slumber; but this we leave to the consideration of manufacturers. Nor can we here enter on the merits of that important question, "Do you double up your perambulators?" which a familiar advertisement in the *Times* daily urges on the public attention.

The LAST carriage! the close dark coffin van, with its sombre trappings, and with its sullen or at best drearily solemn manner of progress, with its escort of mourning coaches, through the never-ending unsympathising streets that lie between the hushed

house of bereavement and the narrow mansion of death! How shall we bring the reader to reconcile himself to such a transition from the sweet idleness and pure mirth of little children at play upon the green lawn, unconscious as the lambs are of a fate that impends over us all, to the sorrowful ride in which an afflicted family must accompany what remains upon earth of one whom they have loved, whose place at their table is henceforth empty, whose voice in their fireside mirth is never more to be heard, whose faults are now forgiven, whose kindnesses are remembered, and confessed with a tear? Who has not been one of that sad party, trembling, weeping, hiding their faces, clasping each other's hands, shrinking from the vulgar gaze, noticing involuntarily, despite his mood of silent abstraction, the strange wild aspect of a hundred common street incidents which he had often seen before? When we think of the HEARSE with its lamented occupant, attended by a procession of vehicles in which such grieving hearts perform that melancholy journey to Kensall Green or to Highgate, or to some other colony of the dead, we scarcely feel disposed to indulge the flight of fancy, or to criticise the gloomy paraphernalia of fringed hammer-cloths, sculptured medallions, and nodding sable plumes. What does it matter if the barbarous taste of undertakers has encumbered this our last conveyance with inappropriate and unseemly tokens of sumptuous pride? He for whom they are put on has learnt the great lesson of humility in the only way in which mankind will learn it, by stripping off the pride of life, the beauty and vigour of the flesh, and making himself ready to descend into the grave. This is the destination of every passenger who takes his place in the last carriage. "To-morrow," let each of us say to the other, "to-morrow it may be yours or mine."

OUR ILLUSTRATIONS.

WE have much pleasure in presenting our readers with a drawing of Messrs. Silk and Son's Landau, and while we do so we wish that we could convey by it some idea of the distinguishing features of the original; but these are of such a nature as to make it difficult for the artist, unless the drawing were on a larger scale, to reproduce them with anything like success; for not only should he give the shape of the body (with respect to most carriages all that is necessary), but each portion and piece of wood and iron-work, great and small, has evidently been so carefully designed, and with such a full appreciation of what is required of it—so fine a taste displayed in the boldness and beauty of the lines—so complete an adaptability to its particular purpose, that it can scarcely be done justice to, unless by a drawing to itself. We would instance the stay which takes the cross-spring and the board on which the rumble is placed, as illustrative of the remark; and what is true of this most important affair is true of the most trivial. It would appear that the minor details have had great care bestowed upon them, that nothing has been considered small enough to be of "no consequence," and hence is achieved that near approach to perfection which only scrupulous attention to what most people call trifles can secure. Said some one, on seeing a great painter give a slight touch to one of his works—"Oh that is a mere trifle." "Trifle!" (said the artist:)

"trifles make perfection, and perfection is no trifle." And without seeking to magnify Coach Builders into Michael Angelos and Titians, we may assume that the principle is true and valuable with respect to the building of carriages, and we would instance the one we are speaking of as a notable example of its application.

The body is of the step-piece shape; and for our part, although the outline is free and bold, we do not think the designer has taken the full advantage of the facilities for gracefulness of outline which this form of body pre-eminently possesses. The design is characteristic, and has that originality which is so striking a feature in most of Messrs. Silk's carriages—which latter quality is "conspicuous by its absence" in those of the majority of the other exhibitors in this department, but it is easy to conceive that it might have been greatly improved without detriment to its distinctness of character or claims to originality; but, whatever the diversity of opinion with respect to the shape, or however various the ideas with respect to the merits or demerits of the style, of the quality of the workmanship we are confident of our judgment not being called into question, when we pronounce it to be of the most superior description. We might mention amongst other things the side sweeps, the perfectness and high finish of the mouldings, the accurate fit, and free action of the doors, the precise adjustment of the joints, as indications of a very high excellence in workmanship, and as a proof of no ordinary mechanical ability. So much then for the body; and as to the carriage and general arrangement, suffice it to say that they are in all respects worthy of it; nothing is omitted which completeness demands—while nothing superfluous can be detected—every bolt has its purpose, and is of the requisite strength, and in the exact place and position to fulfil it. The truth of this latter becomes more apparent the closer the carriage is examined.

As to the painting and trimming, the former is green, relieved with red. The main colour is very fine, and has a certain depth and richness about it well worthy of remark; the varnishing is clean—indeed, so far as we could see, without speck or blemish, and has that lustre about it which proves it to have been applied with a skilful hand. The red relief, especially that of the body, is not at all to our taste; we think in colouring, harmony should be preferred to contrast: and in all cases where contrasts are resorted to it should not be with two very decided colours only, but where there is some neutral colour to (so to speak) break the fall. We have not given sufficient study to the principles of colour to warrant us in venturing a decided opinion, and we should be sorry to be understood as presuming to dogmatise with respect to a matter which is exclusively one of fancy rather than fact, but we cannot refrain from expressing our regret that what we should call a purer taste has not been exercised with respect to the painting of this carriage.

The trimming is a rich green silk, of choice pattern, manufactured from the design of Messrs. Silk and Sons, by Messrs. Poyton and Mosely, of Chapel Street, Curtain Road; the lace also green, is of very elegant design; and the lining of this carriage, considered with respect to the character of the materials, and the manner in which they are used, is to our minds superior to anything exhibited. Many of the best houses, from inadvertency, from the general incapacity of the workmen, or some other cause,

are deficient in this respect: a comparison between the four-in-hand drag in the nave and the carriage of which we are treating will better explain our meaning than any words of ours. For a carriage lining we like to see everything *exactly* where it should be, and so firmly fixed there as to give every promise of remaining in its intended position; and in this respect this carriage cannot be too highly commended. A great deal is often said about the superiority of the Foreign Carriage, and the manner in which the squabs and cushions are quilted in diamonds and divers other devices; but for our part we have great faith in and admiration for our own English style as being superior to all others, when we see it executed, as in the present instance, in the best manner.

True as we believe everything we have said of this carriage to be, we imagine that we but express the common feeling of those who remember Messrs. Silk's contributions to the Great Exhibition of All Nations, 1851, when we say we are to some extent disappointed, for the Exhibition carriage of '62, thoroughly good as it is, can lay no claim to that high artistic excellence so honourably manifested on the former occasion.

We are very glad to see that all just anticipations have been realised by the conferring of a Prize Medal on this carriage. Much complaint has already been made of the manner in which the prizes have been distributed, but no one will question the desert of the receivers in the present instance; and while we congratulate them on their well-merited success, we may remark that whatever may be said of the honour becoming worthless from the number bestowed, or the indiscriminate manner of bestowing, a distinction will never be utterly debased while it is awarded to sterling merit. So long as honest men can acquire dignities, honest men will seek, value, and respect them; no matter how often they may be undeservedly given or unworthily gained.

NEW BROUGHAM SHOFLÉ.

This carriage is the last, and perhaps the best, of many attempts in the same direction; it is recommended in the "Illustrated Catalogue" as uniting the "comfort and lightness of the brougham and the cab." If the idea sought to be conveyed by this somewhat ambiguous sentence is that the carriage combines the comfort of the brougham with the lightness of the cab, we are inclined to think that any description we can give of it could not be more truthful or comprehensive.

The idea, whatever may be said of the manner in which it is treated, is not original; a very similar carriage, but a much heavier, was, if we mistake not, exhibited in 1851; and before and since that time there have been many trials made with the same object in view, and several carriages, more or less resembling the one under notice, have made their appearance both as public and private conveyances, but have all after a short time disappeared and gone their way to the dreaded limbo of unsuccessful and abortive projects.

We see no reason to suppose, in fact we see many reasons why this carriage should not follow in the same melancholy direction. In the first place the "shoflé" form of carriage has of late come much into favour among the nobility and gentry, and any carriage adopting its general characteristics, while, as in this case, it develops a higher and more general utility, is more

likely to find favour now than at any previous time, and does not count fashion amongst the obstacles with which it has to contend. It is no mean consideration in favour of the idea that any novelty in carriages will be well received, that in form it is not extravagantly removed from any vehicle in common use, and that something which has gone before has prevented it being liable to objection on account of its extraordinary appearance; for however it be with useless things it is not in human nature that the owner of any article of utility should like to be perpetually bored by all his friends, as they open their eyes very wide, saluting him with the question—"What have you there?" "Where on earth did you get that?" On this account then, apart from merits or demerits, we are inclined to think that Mr. Felton's scheme has chances of success superior to any of its predecessors, and further than this it may be spoken of as possessing many of the qualities necessary to a desirable vehicle. For the description of carriage it is, we should imagine, light of draught, and from the uninterrupted look-out which may be enjoyed by its occupants, and the space provided for them, it must be a very pleasant carriage to ride in. It may be said, and with some show of justice, that for all practical purposes it is not superior to a Hansom cab enclosed by a shutter; but for our own part we never ride in these very useful vehicles with the shutter down, but we feel that we are shut up in a sort of cupboard to keep us out of mischief, or else that we are placed on view in a glass case, like some interesting natural curiosity. Mr. Felton's carriage is certainly superior in this respect, as it offers, so far as space is concerned, the same amount of comfort as most broughams.

Whether as compared with a brougham this carriage can be worked with less expenditure of horse-flesh we are somewhat at a loss to offer an opinion, that the length of the leverage on the shoulders of the horse must be very trying to the animal is pretty obvious, and so far as we can judge this disadvantage is necessarily greater in Mr. Felton's carriage than in the common Hansom, and even with respect to the latter most authorities on the subject seem to think that the strain and side rack is too much in a general way for ordinary horses.

It is a question not yet decided to our satisfaction whether a well-built brougham of moderate weight would distress a horse so much as a two-wheel carriage that may be said to be a long lever, with the axle acting as the fulcrum, and against the strain of this lever which the position of the driver greatly increases the horse has perpetually to struggle.

If the Council of Horses, painted by the late Mr. Ward, R.A., could be appealed to on the question, it might be decided and set at rest, but as there is some difficulty in arriving at the equine opinion on this matter, it must, we fear, remain to some extent a subject of speculation, although its decision would be very important as regards the success of Mr. Felton's brougham shofie. Much skill has apparently been exercised in the building of this carriage with a view to remove any objection that might have been made to it on account of its taxing too severely the powers of the horse, and with such measure of success that we consider it as among the lightest things of the kind we have seen, and think we could, without going out of the Exhibition, find a specimen of the common hansom much heavier than this, although it is so inferior to it in the space and accommodation offered to

its occupants. The arrangement of the doors (the principal difficulty) is on the whole satisfactory, although it would have been nearer perfect if by some contrivance the few inches of space between the foot-room and the splash-leather had been availed of, as in this carriage the importance of a few inches in length can scarcely be overrated. While speaking of the doors, we may remark in passing that the locks and handles are not quite what they should be, nor well adjusted. The sham handles in the side are fitted in a rather loose and slovenly manner, and altogether a little more attention to this small but very important and often neglected matter, would have considerably conduced to the claims of this carriage to general excellence.

Considered as a specimen of carriage building, we do not hesitate to declare this two-wheeled brougham a specimen of high-class workmanship. Some of the ironwork is especially worthy of remark. We may instance, by way of example, the stay or iron which carries the cross-spring as a very creditable specimen of intricate forging, and the rest of the ironwork is characterised by such gracefulness and mechanical ability in the design, and such carefulness and skill in the execution, as to commend it to our best attention, and elicit our unqualified praise.

We need say little more. Mr. Felton has displayed some skill in the manner in which he has increased the practical and positive utility of a description of carriage rapidly gaining in public favour, and we have little doubt but that he will readily find many desirous of availing themselves of the unquestionable advantages he has to offer.

THE VARNISH DEPARTMENT OF THE INTERNATIONAL EXHIBITION.

To Coach Builders, as indeed to nearly all decorative painters, varnish is an article of great importance. It is the last material applied, and unless its quality be good and suited to the work, the effect will be lost. The qualities of good varnish are many, and include paleness of colour, hardness on drying, smoothness and brilliancy of surface, which it must retain, and durability, by which term is meant that quality in varnish which will enable it to retain its brilliancy and surface without cracking.

In the eastern annex of the Exhibition the varnish-makers are somewhat feebly represented, and a few very excellent cases admirably adapted to the purpose are filled with samples of varnish, and specimens of the various resins from which varnish is manufactured. Close by the entrance to the annex is the case of Messrs. G. and T. Wallis, of Long Acre, in which are shown all the component parts of varnish. We see the numerous natural resins from which varnishes are made, the linseed from which the oil is obtained, and the rough resinous matter, a product of the Southern States of America, from which the turpentine is distilled.

The solutions of these several resins are also displayed as well as the oils extracted from them; and lastly, though probably the most important of all, are a series of tubes displaying the varnishes which are manufactured from them.

Close by the case of Messrs. Wallis is that of Messrs. Mander,

Brothers, of High Holborn and Southampton. This is a rather small but very beautiful specimen of the case-maker's art, but from the position in which it has been placed its contents cannot be advantageously seen, except on a close inspection. In addition to a variety of varnishes made by themselves, Messrs. Mander have added, as objects of general interest, specimens of gums from the East Indies, New Zealand, and Africa, used in the manufacture of varnishes, and they claim for their white coburg varnish the distinction of being the most colourless and durable varnish yet produced for decorative purposes.

While referring to the superior character of the varnishes exhibited by Mander, Brothers, we cannot omit to mention how gratified we have been by a recent inspection of their Works at Wolverhampton. We had no idea until then of the capital embarked in this trade, nor indeed of the enormous aggregate demand for the article.

The Works, we find, were established in the year 1803, but the greater part has been recently rebuilt fireproof, with every appliance for convenience and for the economising of labour. We may instance tramways from the manufactory to the warehouses, by which the varnishes are safely and rapidly moved to and from the apparently interminable number of cisterns which contain it. Some idea of these vessels may be gathered from the fact that a new warehouse, built last year, contains nearly 25,000 gallons of copal varnish. It is for the ripening effect which age alone can produce that so large a stock is maintained.

We cannot enter into details generally, but we were astonished at the care which was evident in every department, from the early stage of the cleaning and sorting of the gums and material used, to the final trials upon panels by experienced coach and house painters, of every cistern of varnish, as we were informed, at least three times before it is permitted to leave the Works.

Underneath the premises is a very extensive range of well-lighted cellaring for the storing of raw material—oil, turpentine, &c.

Our notice of these Works is necessarily brief, but we carried away with us the conviction that no effort is spared by this firm to maintain the high position which it has occupied for so many years.

Messrs. Wilkinson, Heywood, and Clark also exhibit some very admirable specimens of varnish and colour, but we think, so far as mere number is concerned, the varnish makers are rather inadequately represented. We should have been glad to see the names of more leading firms among the Exhibitors.

REPORT OF THE COUNCIL OF CHAIRMEN.

THE work of the several juries having been brought to a termination, it becomes the duty of the Council of Chairmen to explain the manner in which the juries were constituted, and the result of their labours.

The juries consisted of English and Foreign members in varying proportions. The English jurors were in the first place nominated by exhibitors, and these nominations having been

carefully considered, Her Majesty's Commissioners invariably appointed such persons as appeared to be named by the general agreement of a trade or district. In cases where the nominations were not made on a common understanding, the Royal Commissioners were guided in their choice by the number of votes given to particular individuals, and, in some instances, by the desire expressed by exhibitors that the Commissioners should themselves select persons possessing the necessary qualifications.

The British Colonies were represented by jurors recommended by the several Colonial Commissioners.

Foreign nations taking part in the Exhibition had a right to nominate one juror for every class in which they were represented by twenty exhibitors, and for every section of a class in which they had fifteen exhibitors. As an alternative, each nation had a certain number of jurors allotted to it, in proportion to the space which it occupied in the building, and several countries accepted this alternative. Her Majesty's Commissioners, without fixing any arbitrary proportion between Foreign and English jurors, appointed as many of the latter to each jury as the experience of past Exhibitions showed to be necessary for its efficiency.

The juries were sixty-five in number, grouped so as to form thirty-six classes or head juries, corresponding to the thirty-six industrial classes under which the objects are arranged in the Exhibition. Each of these head juries, when subdivided into sections, acted as a united body for the confirmation of awards. Before, however, these awards were considered final, they were brought before and received the sanction of a Council, consisting of the chairmen of the thirty-six head juries. The chairmen, forming the Council which regulated the affairs of the juries, were nominated by Her Majesty's Commissioners from the jurors of different nations, a number being allotted to each country relatively to the space assigned to it in the building. The Council was presided over by a chairman appointed by Her Majesty's Commissioners.

Her Majesty's Commissioners decided that only one description of medal should be awarded by the juries. This decision considerably facilitated their labours, as it became necessary only to reward excellence wherever it was found, without reference to competition between exhibitors. As the work of the juries advanced, it was ascertained that many articles possessed excellence of a kind which deserved a special mention, without, however, entitling them to a medal; and although it involved some departure from the principle that had been originally laid down, yet the Council of chairmen acceded to the wish of the juries, and permitted such cases to be classed and published under the title of "Honourable Mentions."

The jurors and their associates engaged in examining the objects of the Exhibition amounted to 612 persons, of whom 287 were Foreigners, and 325 English. They are men of high social, scientific, and industrial position, drawn from nearly every civilized country in the world. Their labours have occupied two months, and have been of the most arduous description, as they had to examine the objects displayed by at least 25,000 exhibitors. It can scarcely be expected that none of the articles exhibited have escaped their attention. In a few instances the delay of arrival or of arrangement has rendered it impossible for the juries

to examine every article now within the building; while, in other cases, errors in classification have rendered it doubtful to which of the juries the duty of examining some particular object should fall. Every effort, however, has been made to conquer these obstacles, and the omissions, if any, must be very few in number, and are not owing to the want of attention of the juries or of the officers engaged in facilitating their work.

The number of medals voted by the juries amount to nearly 7,000, and the Honourable Mentions to about 5,300. The proportion of awards to exhibitors is greater than in the International Exhibition of 1851, but less than in that of 1855.

Notwithstanding the varied nationalities represented in the juries, it is gratifying to record that the utmost harmony has prevailed during the whole time that the jurors have been associated in their labours. The mutual dependence and intimate alliance between the industries of the world have been illustrated by the zealous and impartial efforts of the jurors of different nations to recognise and reward the merit displayed in the exhibitions of their industrial competitors.

We are glad to observe that the state of industry, as shown in the International Exhibition, gives evidence of a singularly active and healthy progress throughout the civilized world; for while we find every nation searching for new raw materials or utilizing products hitherto considered as waste, we are struck especially with the vast improvement in the machinery employed to adapt them to industrial purposes, as well as with the applications of science, and with the great and successful attention which is now given to all the arts necessary to gratify our taste and sense of beauty.

We cannot conclude this report without expressing our obligations to Dr. Lyon Playfair, the Special Commissioner for juries, for the constant and intelligent assistance which he has rendered to us throughout our labours, as well as to the Deputy Commissioners and Secretary, who have acted under his direction, and have afforded efficient aid to the several juries during their inquiries.

TAUNTON, *President of the Council.*

INSTRUCTIONS FROM THE COUNCIL OF CHAIRMEN TO THE JURORS.

THE Council of Chairmen have met in compliance with the direction to that effect, contained in the decisions of Her Majesty's Commissioners, and have agreed to the following instructions as a guide to the juries, first alluding to those points upon which the decisions of the Commissioners are clear and precise.

1. *Working of Juries.*—In regard to the working of juries, the Council of Chairmen think it advisable to leave much to the discretion and experience of the jury, but they have to remind the juries that all awards must be returned to and transmitted by the Council to Her Majesty's Commissioners before the 15th of June.

2. *Deputy Chairman.*—The head juries will, at their first meeting, elect a deputy chairman, who will assist the chairman, and fill his place in the jury or the council in his absence. The Council express their opinion that in every case where a chairman is a subject of this kingdom, the deputy chairman should be chosen from the foreign jurors.

3. *Chairman of Sectional Juries.*—Each sectional jury will, at its first meeting, elect a chairman to preside at its meetings.

4. *Reporter or Secretary.*—Any jury may appoint a secretary to record the results of their deliberations.

5. *Evidence and Associates.*—When the jury wish to call in the aid of a person of technical knowledge to aid their judgment, they may do so in conformity with the 6th article of the General Decisions. Jurors of another class or section may be associated with a jury when the majority of the jury decide to call upon them for aid; in both cases, however, the person, so called in do not possess votes in the jury.

6. *Juries to carry on their investigations without delay.*—As Her Majesty's Commissioners have decided that all the awards must be made before the 15th of June, it is necessary that no delay should take place in prosecuting the work of the juries.

7. *Mode of making the Awards.*—When a jury of a class which is not subdivided into sections has decided upon their awards, these are to be transmitted to the Council of Chairmen, according to the 21st article of the decisions of Her Majesty's Commissioners.

8. *Awards of Sectional Juries.*—When a sectional jury has decided upon their awards, these are to be submitted to a general meeting of all the sections of the class united, according to the 7th article of the General Decisions.

9. *Statement of the Grounds of Award.*—The juries must attach to each award a brief statement of the grounds on which it is made.

10. *Awards become final when confirmed by the Council of Chairmen.*—The awards will become final as soon as the Council of Chairmen have decided that they are in conformity with the General Decisions of Her Majesty's Commissioners, and with the rules now laid down by the Council, or which may hereafter be enacted by the Council.

11. *Secrecy.*—All the considerations, discussions, and decisions of each jury, and of the Council of Chairmen, are to be considered as strictly confidential, and are on no account to be divulged until Her Majesty's Commissioners sanction the publication of the awards.

12. *Medals to be awarded without reference to Nationality.*—The medals will be awarded for excellence only, without reference to countries; the Exhibition, so far as regards the juries, being considered as a whole, and not as consisting of a mere juxtaposition of separate displays by different nations.

13. *Number of Medals.*—The number of medals required by each class cannot be determined with precision before the examination of the objects. Guided by the experience of former Exhibitions, Her Majesty's Commissioners have authorised the Special Commissioner to place a definite number of medals at the disposal of each Jury, but have reserved the right of the Council of Chairmen to increase this number, if individual juries give reasons which are considered satisfactory by the Council.

14. *All Medals of one kind.*—There are no gradations of medals, all being the same. The medals are to be awarded for merit, without any distinction of degree, and without reference to competition between producers. It is not the best manufacturer, in any particular branch of industry, who should alone be rewarded by a medal, but all producers who shall show, by

their exhibits, that their products are excellent in their kind. No exhibitor, however, can receive more than one medal from one jury.

15. *General Instructions for the giving of Medals.*—The Council of Chairmen do not deem it advisable to issue formal and positive instructions as to the conditions under which medals should be awarded, but think it expedient to offer the following suggestions to the juries, trusting in their ability to make rules for their separate guidance:—

A.—RAW MATERIALS, INCLUDING CLASSES I. TO IV.

Medals are to be awarded for novelty in the mode of obtaining applying, and adapting raw materials and produce; for skill and excellence in known methods of obtaining, applying, or adapting them; for excellence in the quality obtained, combined with utility; for the value of the instructiveness of the series exhibited.

B.—MACHINERY, INCLUDING CLASSES V. TO XVII.

1. The juries of Classes V., VII., and VIII. (railway, manufacturing, and general machinery), will be careful in admitting claims of novelty of invention without sufficient scrutiny. They will reward machinery in which is found fitness for the object sought to be obtained, economy in first cost, durability, economy in maintenance, and excellence of workmanship. In the case of Class VII., manufacturing machinery, the juries will also consider the economy in the production, and perfection in the articles manufactured; the saving in time and the quantity produced.

2. The jury for carriages, Class VI., will in respect to those of luxury reward the successful application of any new material, with elegance of design and excellence of workmanship, strength, lightness, and reasonable cheapness. As regards carriages of transport, and others for the public service, the jury will consider favourably lightness, sufficient solidity for safety, durability, and cheapness.

3. The jury for agricultural and horticultural implements, Class IX., are recommended to consult the conditions under which the leading Agricultural Societies make their awards in their periodical exhibitions.

4. The juries for Class X. (civil engineering, architectural and building contrivances), will reward science and skill in design to obtain the object sought with the greatest economy, fitness in the application of material, success in the work in which the model or drawing is exhibited, perfection of workmanship in the model or drawing exhibited.

5. The juries for Classes XI. and XII. (military engineering, &c., and naval architecture), will reward merits of combination in the models or drawings relating to military engineering; advantages obtained by experiments in carrying out the means proposed, either by models or drawings; improvements in arms, apparatus, or any articles belonging to military or naval service, or architecture, to rigging or other branches of seamanship, to accoutrements or equipments of troops; their fitness, efficacy, and economy of production.

6. The jury for Class XIII. (philosophical instruments), will reward novelty of inventions, or novelty in the whole or part of the instruments exhibited, ingenuity of construction, new application of old principles, application of new principles, improve-

ments in beauty of form, increased durability, extended applications, excellence and precision in workmanship, economy of production.

7. The jury for Class XIV. (photography and photographic apparatus), will reward the instruments of photography on the same considerations as are attached to the class of philosophical instruments. In regard to photographic impressions, they will reward novelties in the mode of production, durability, excellence in the results obtained, and artistic merit. With reference to photographic materials, novelty or new applications, increased sensitiveness or powers of retention, and facilities of operating, should be favourably considered.

8. The jury for Class XV. (horological instruments), will, in their awards, take into account ascertained or probable accuracy and certainty of performance, whether in time keeping, discharging of striking parts, or registering; stability, strength, and durability, simplicity and economy of construction, goodness of execution. High finish is to be considered subordinate to precision and accuracy of construction.

9. The jury for Class XVI. (musical instruments), will consider novelty of invention, novel application of old inventions, improvements of of mechanical action, tone, perfection of workmanship, beauty of design combined with general excellence, increased facility of action, cheapness combined with durability.

10. The jury for Class XVII. (surgical instruments), will reward the exhibitors of instruments which possess novelty of a useful character, giving evidence of originality and inventive power, ingenuity in the application, extension or modification of principles already known, or for new combinations, mechanical skill, including cheapness, finish, and other qualities of mechanical execution.

C.—TEXTILE, FELTED, AND LAID MANUFACTURES.

The juries for textile manufactures, and also those of fur, hair, feathers, and leather, paper, &c., from XVIII. to XXX., will make, as the groundwork of their awards, increased usefulness, such as permanency in dyes, improved forms and arrangements in articles of utility, &c., superior quality or superior skill in workmanship; new use of known materials; use of new materials; new combinations of materials; beauty of design in form or colour, or both, with reference to utility; cheapness, relating to excellence of production. The Educational Works and Apparatus in Class XXIX. will be judged of by their fitness for their purpose; for their illustrative character and economy of production.

D.—METALLIC, VITREOUS, AND CERAMIC MANUFACTURES.

The juries of the Classes from XXXI. to XXXVI. will examine whether the articles exhibited show inventions or discoveries as to economy, increase, or perfection of production; regularity of manufactures, combined with excellence of design; novel application of known discoveries; increased utility, combined with novelty and beauty; excellence of workmanship and quality.

In regard to the jury of Class XXXVI., novelty of material or application, excellence of design, material, workmanship, and cheapness are to be taken into consideration.

(Signed) TAUNTON, *President of the Council.*

JURY AWARDS.

CLASS VI.

Carriages not connected with Rail or Tram Roads.

JURORS WHO ARE ALSO EXHIBITORS.

NATION.	No. in Catalogue.	JURORS.	Firms to which they belong.
United Kingdom	1383	Hooper, G. N.	<i>Hooper & Co.</i>
—	1414	Peters, J. W.	<i>Peters & Sons.</i>
—	1381	Holmes, H.	<i>Holmes, H. & A.</i>

MEDAL.

NATION.	No. in Catalogue.	NAME OF EXHIBITOR.	OBJECTS REWARDED AND REASONS FOR THE AWARD.
United Kingdom	1338	Aldebert, J.	Light landau, of good form, proportion, workmanship, and material; the colours in good taste.
—	1343	Booker & Sons	Sociable, of light construction and good form, proportions, workmanship, and materials; colours in good taste.
—	1345	Braby, J., & Son	Waggon, good proportions, workmanship, and material.
—	1346	Briggs, G., & Co.	Double brougham, hung on under and C springs, good workmanship and materials; colours well combined.
—	1354	Cockshoot, J.	Brougham, good proportions, workmanship, and material.
—	1355	Cole, W.	Double brougham, of good form, proportions, workmanship, and materials; colours well combined.
—	1356	Cook & Holdway	Light landau, good proportions, workmanship, and materials.
—	1364	Edwards, Son, & Chamberlayne	Landau, good proportions, workmanship, and materials.
—	1375	Hall & Sons	Barouche, good proportions, workmanship, and materials; colour in good taste.
—	1378	Hazeldine, G.	Road van, of good construction, proportions, workmanship, and materials.
—	1382	Holroyd, Noble, & Collier	Wheels and fancy carriage panels, the whole sound and well made by machinery, the fancy panels sharply and evenly cut.
—	1388	Hutton, J., & Sons	Brougham, good proportions, materials, workmanship; colours well combined.
—	1397	Mac Naught & Smith	Waggonette with enclosure, of good proportions, workmanship, and materials; colours in good taste.
—	1400	Mason, H. H.	Waggonette with enclosure, of good proportions, workmanship, and material; colours well combined.
—	1418	Rigby & Robinson	Landau, of original design, and good workmanship, and materials; colours well combined.
—	1420	Rock & Son	Dioropha with enclosure, of good proportions. workmanship, and materials.
—	1426	Shanks, R. H. & F.	Landau, of good proportions, workmanship, and materials.
—	1431	Silk & Sons	Landau, of good proportions, workmanship, and materials.
—	1443	Thrupp & Maberly	Light coach, of good proportions, workmanship, and materials.
—	1444	Turrill, H. L.	Private Hansom cab, of good proportions, workmanship, and materials; colours in good taste.

MEDAL—continued.

NATION.	No. in Catalogue.	NAME OF EXHIBITOR.	OBJECTS REWARDED AND REASONS FOR THE AWARD.
United Kingdom	1446	Ward, J.	Invalid chair, &c., of good construction, workmanship, and materials.
—	1452	Woodall & Son	Coach of good form, workmanship, and materials.
—	1454	Wyburn & Co.	Landau of good proportions, workmanship, and materials; colours in good taste.
Belgium	211	Jones, Brothers	Phaeton of light construction, good proportions, workmanship, and materials; colours in good taste.
France	1043	Belvallette, Brothers	Landau, good proportions, workmanship, and materials; colours well combined.
—	1053	Colas, Delongueil, & Communay	Wheels, sound and well made by machinery.
—	1041	Desouches-Touchard & Son	Brougham, good proportions, workmanship, and materials.
—	1050	Moingear, Brothers	Coach on under and C springs, good workmanship and materials; colours in good taste.
—	1042	Paris General Omnibus Company	Public omnibus, good construction, comfortable, convenient of access, good workmanship and materials.
Grand Duchy of Hesse	511	Dick & Kirschten	Phaeton and model of self-acting step; phaeton of good proportions, workmanship, and materials.
Netherlands	126	Hermans, M. L. & Co.	Sociable, good proportions, workmanship, and materials.
Prussia	1265	Neuss, J.	State coach with rich and handsome decorations, the colours in good taste.
Russia	292	Nellis, Ch., jun.	Droshki of good form, workmanship, materials, and colours.
—	295	Schwartz, H.	Phaeton, good form, proportion, workmanship, and materials.
United States	18	Brewster & Co.	Phaeton of sound construction, good workmanship, especially as to varnishing and leather work, good materials.

HONOURABLE MENTION.

United Kingdom	1342	Black, H., & Son	Coach of sound workmanship and materials.
—	1357	Cooper, Blackford, & Son	Coach lace of sound workmanship and materials.
—	1361	Dart & Son	Coach lace of sound workmanship and materials.
—	1369	Fuller, J., & Sons	For a waggonette of sound workmanship and materials.
—	1377	Hawkins, J.	Springs of sound workmanship and materials.
—	1386	Howitt, W. J.	Springs of sound workmanship and materials.
—	1390	Jones, W.	For ornamental carriage painting of sound workmanship and materials.
—	1398	Macnee, J. & Co.	A landau of sound workmanship and materials.
—	1413	Pearce & Countze	A landau of sound workmanship and materials.
—	1441	Thorn, W. & F.	A landau of sound workmanship and materials.
—	1445	Vezey, R. & E.	A brougham of sound workmanship and materials.
—	1450	Wicksteed, F.	For carriage drawings.
—	1448	Watkins & Hornsby	For safety axles of sound workmanship and materials.

OUR ILLUSTRATIONS.

"STAREY, S. R., Nottingham, light landau (the Granville), with flat fall head, new highly elastic springs, and silent wheels, with chain tyres."

Among the numerous Coach-builders who have gone heart and soul into the work of perfecting the carriage of carriages, the landau, and the result of whose efforts forms so large a portion of the present display, Mr. Starey must be accorded an honourable place; for, however opinions may differ as to the value of his achievement, it must be agreed on all hands that none perceive more quickly than he the wants of his day, or are more alert and zealous in his efforts to meet them, none more ready than he to take advantage of any scientific discoveries which are calculated to be of service to Carriage-builders; witness the fact of the carriage exhibited being strengthened throughout with mild steel, and the various other valuable improvements introduced.

As to the workmanship of the carriage, it appears to us substantial and faultless, and great care has evidently been taken with every detail. The design is commendable, and the proportions tolerably good, although the general effect is greatly marred by the extreme depth of rocker; and the excessively broad moulding crossing the door at the elbow line, these give a preponderance of black, and thus convey an idea of heaviness, which the construction and dimensions, or shape of the body, do not warrant.

With respect to the plan for making the head fall flat, we must say we have seen others equally efficient and open to fewer objections. That the head does fall flat, and therefore the main object gained is evident enough; at one corner, the off-side hind, it droops beyond the horizontal line; but this defect, disastrous as it is to the look of the head when open, might be easily remedied, and can in no way affect the principle of the affair, and only goes to prove that the object in view has been realised beyond all wishes and expectations.

We have no very high opinion of the plan of cutting the door pillar as a means of getting the top pillars flush with the door tops when down; in the carriage before us the result is, that when the door is opened there are two sharply pointed blocks of timber in the way of ingress or egress to the carriage, not only unsightly, but eminently calculated to catch dresses, shawls, &c. The door has been made unusually wide, with a view, we suppose, to counteract this disadvantage, but only in a slight degree ameliorates it; the projecting points remain, and the only result of widening the door is that they are less in the way than they appear, while the proceeding itself is fraught with unanswerable objections, and is likely to be detrimental to the action of the door itself.

The fashion of turning under the body so much, as at present, renders the arrangement of the door on concealed hinges a difficult matter; and the hinges being necessarily close together the door itself has a leverage on them, which is greatly increased by every inch on the width of it; and when we look at the immense weight the hinges have to carry, the disadvantageous position for supporting that weight they are obliged to be fixed in,—when we consider that the door is a long arm of a lever, on

the extremity of which the weight of a heavy man may now and then be leant,—we cannot think it very prudent so to widen the door as to increase the disadvantage of these several considerations, and to throw more work upon a part that is in the most favourable circumstances a weak—or in so great a degree to increase the disparity between the work to be done and the machinery. The facts that the hinges are of extra strength, well fitted and adjusted, and fixed in the best manner, are greatly in favour of their performing what is required of them, and we have little doubt that they will be found equal to ordinary work, although they are severely and, as we think, unnecessarily taxed.

Objection has also been made to the increased width of door that it destroys proportion, and it must be admitted that the quarters look ridiculously small; it seems unimportant to the appearance of a carriage whether the brass plate, as it is painted the same as the panel, be an inch or so one way or the other, and yet the moment we see the carriage, the great width of the door forces itself on our attention, and we perceive immediately that the usual proportions have been sacrificed, and the eye is offended by the sense of the extraordinary. And this idea is not confined to ourselves, for we have heard it remarked as presenting the appearance of an invalid carriage, and if this is the impression conveyed to amateurs in carriages, it is a warning to carriage-builders to keep the width of the door within ordinary limits. The advantages the wide door offers with respect to leaving "ample room and verge enough" for the present style of ladies' dresses, may go far to make amends for the unsightliness complained of, and the fact of any arrangement tending to the comfort and convenience of carriage users, and calculated to facilitate ingress and egress, should predispose us in its favour, however strange it may at first sight appear, or whatever mechanical difficulties it may involve. As has been remarked, and who seeing the carriage can fail to remark it, the footboard is too upright; this is so evident and palpable an error that we think it only necessary to thus briefly allude to it: it should be remembered, in extenuation, that it is out of the way of the horses, a thing we cannot say of all the footboards we see. If the shortness of the carriage had been less studied, and the getting the horses close to their work less cared about, we imagine this defect would never have existed, and the large amount of fault-finding which has been expended on this unhappy footboard would have fallen to the ground for lack of a peg to hang on; a ledge will easily make it practicable as a support for the coachman's feet, although its position, contrary as it is to all the other lines of the carriage, must ever greatly deteriorate the general appearance.

The arrangements with respect to the positions of the springs, wheels for carriage, &c., seem to us faultless, and indicates the exercise of much intelligent care and ability. The ironwork (or, rather, we should say steel) is excellent in design and execution. The wheel irons are especially noteworthy; had they been modelled by a sculptor their shape could not have been more graceful, nor their gradual taper more precise, and the finish of them, as, indeed, of all the ironwork, is exquisite. While the woodwork of the under carriage is a very praiseworthy combination of lightness, good form, and efficiency; and

wood and iron together have that clean, sharp, "*crisp*" appearance which always characterises first-class workmanship.

With respect to the improved noiseless wheels we have not seen them at work, so cannot give a decided opinion, but we must confess ourselves rather sceptical as to their noiselessness; there will be the concussion of the metal on the stone if the road be paved, and, unless this be prevented, we do not think that any india rubber between the tyre and the wheel will be efficient for the purpose intended. That the arrangement in question will greatly diminish the noise, and render the motion of the carriage easy, is beyond a doubt, but we think that flexible tyres of any description will always be objectionable as increasing the draught; for, although on the one hand it may be said that the fact of the tyre being flexible will ease it over obstacles caused by inequalities in the road, it must not be forgotten that the circle of the wheel is broken, and that the perfection of that circle is the very vital principle of its free progress. Of course this is a question that actual use only can decide, and to this we must perforce leave it, while we readily admit the ingenuity displayed in the invention.

The trimming, though of excellent material and in good taste, might, we think, in point of workmanship, be improved; the lace on the fronts of the cushions does not set so well as some we have seen. It may be that the carriage has been sat in; but, however arising, this trifling defect gives a look of untidiness to that part of the carriage.

Of the painting the name of Owen Jones ought to be enough to stay our pen, and satisfy our readers, were it not that usually, when men illustrious in one art, or in a special application of a certain art, attempt to apply their knowledge or talents to any other, they do not meet with the success that might reasonably be expected. Presuming that our appreciation of and taste for the beautiful are the result of certain fixed though not definable principles, it might be reasonably supposed that he who could build a fine church could design a pretty carriage, or that he who can convert a block of marble into an epitome of all that is beautiful in form and exquisite in proportion could, if he chose, produce a drawing for a carriage of such graceful outline, exquisite proportion, and striking beauty, that the thought of reproducing in wood and iron would drive all coach-builders to despair, and mock them with a sense of their own incompetency; but our experience gives these suppositions to the winds, for we find that the suggestions of architects, painters, sculptors, &c., are generally the least useful and the least practicable when directed towards coach-building; and this experience would not lead us to expect that any great amount of success would attend the suggestions of the most distinguished professor of architectural decoration when applied to carriage painting; but in the case before us our reasonable suppositions are verified, the reverse of our experience has taken place, for, in our opinion, the carriage of Mr. Starey displays a novel and pleasing combination of colour, scarcely to be equalled in the Exhibition. This is the more remarkable, when we consider that the colours employed are green, red, white, and yellow, difficult colours, we should think, to deal with; and it is somewhat puzzling to account for the beautiful effect and peculiar brilliancy, we might say piquancy, which is produced. While calling the attention

of our readers to this circumstance, we cannot but congratulate Mr. Starey upon receiving and carrying out so successfully the suggestions of so distinguished a colourist, if Mr. Owen Jones will permit us thus to characterize him.

Altogether, we consider this carriage a commendable specimen of modern Coach-building, embracing as it does many modern improvements, and calculated as it is to meet many modern requirements. We regret that the presence of the certain defects should prevent us praising it as possessing absolute excellence.

FULLER & SON'S EXHIBITION CARRIAGE.

Fuller & Son's Stanhope Phaeton Waggonette with screw break.—We have much pleasure in presenting our readers with a drawing of this pleasing little carriage, as being one of the prettiest in the Exhibition. There is nothing new about it to need any remarks of ours, and, as we have nothing to say but to express our unqualified admiration, our notice will be necessarily short. Considered with respect to form, lightness, proportion, or finish, it is a perfect specimen of light Carriage-building, and as such worthy of the honourable mention which has been bestowed on it.

Its attractive appearance is principally owing to the rake and shape of the sham door, and the happy manner in which, taking this as a leading feature, all the other lines are harmonized with it. The workmanship is of a very high character with respect both to wood and iron; we would call especial attention to the fore carriage as being thoroughly good and well finished. The piece of ironwork forming the wheel iron and futchell, branching at the futchell end, seems to us a very neat specimen of coach-smith's work, although it may be objected to as likely to be expensive to set right, should it incur any damage. With respect to the other ironwork it is equally good, but some portions are too "*Bristolonian*" for our taste. The peculiarities which Bristol carriages always possess have in this carriage been modified to some purpose, and to the great improvement in the appearance.

The arrangements for the break deserve notice as being not unsightly, easily worked, and efficient. The small plated handle at the side is superior to most other contrivances for the same purpose we remember having seen. The painting and trimming are worthy of the rest of the carriage, both in respect of taste and workmanship; and, notwithstanding its unpretending and simple character, this phaeton waggonette is a conspicuous object amongst the great display of coach-building excellencies by which it is surrounded.

THE TELEGRAPH AMONG THE CARRIAGES.

So rarely does the general press attempt to give opinions, or to decide questions appertaining to the trades to which our journal is devoted, that we have considered that we shall not be rendering our readers bad or useless service in inviting their attention, and offering a few remarks on the articles in the *Daily Telegraph* of 7th, 8th, and 9th of the present month. The writer commences by observing that the carriage "*avenue*" is not

so much frequented on shilling as on half-crown days, and goes on by sagely remarking, that Coach-building has, in fact, less interest for the many than for the few, and, after dispensing this threadbare information, indulging in the somewhat common-place reflections which follow.

The English carriages in this part of the Exhibition are, however, well worth inspection for the sake of their skilful workmanship, and may afford gratification to thousands who have as little thought of being smoothly borne along on their pliant springs as of wearing the Koh-i-noor for a breast-pin, or of ornamenting a sitting-room with Gibson's statuary. Class 6 in the International Exhibition is the only department where British manufacturers have had a chance against foreigners in the matter of jurors' awards. Positively, the medals given to native exhibitors are two to one against other Coach-building nations; and our countrymen share all the "honourable mentions" among them. In fact, twenty-three British firms take medals and thirteen receive the minor award; while the medalled of foreign nations comprise one Belgian, five French, one Dutch, one American, two German, and two Russian contributors.

The first idea in looking through the strings of English carriages, which are crowded together with as little ceremony as on a racecourse, is, that comfort has nearly thrust aside splendour; so long as a coach was the symbol of dignity, hammer-cloths and panels shone with heraldic blazonings, and six Flemish horses, bedizened with brass, dragged about a comfortless kind of state barge upon wheels. The dapper little brougham, with its pair of active bays, or its one powerful but by no means heavy or sluggish horse, is now considered a perfectly fit conveyance for the highest in the land. Improved roads have helped to bring about the change, and M'Adam and Telford are immortalised in the excellent productions of Aldebert, Laurie, and Thrupp. The times have gone by when we rose in the dark on a raw winter's morning to catch the stage from Paddington to the Bank, or when a traveller in his own coach had to be drawn out of a quagmire not a quarter of a mile from Pall-mall by cart-horses borrowed from a neighbouring farmhouse. We have mended our ways, in more significations than one, and coach-builders, no less than other people, have arrived at the sensible conclusion that nothing is so luxurious as comfort, or so uncomfortable as luxury. Reduction in cost has naturally followed improvements of many kinds, and the equipage of a gentleman is as plain as his coat, which in very scarce instances represents a quarter of his yearly income, as it did frequently enough in the brave days of old.

And telling us that in the English division there are *several* hansom cabs, (I for my own part have only discovered two,) he gives his readers what I should suspect to be the benefit of his reading in "THE CARRIAGE BUILDERS' AND HARNESS MAKERS' ART JOURNAL" in the following words:

Most of the well-known metropolitan and provincial establishments are here represented; but we miss some few leading firms who have helped to bring modern coach-building to its present state of perfection. Some novelties of form and also revivals of nearly forgotten fashions are observable. That convenient and agreeable family carriage, the waggonette, is included in the first category, and the old landau is brought forward again in the second.

He remarks that the time-honoured four-in-hand drag has not fallen into oblivion, and probably never will. Mr. Peters, being a juryman, gets no medal for that most gentlemanly and sportsmanlike coach, placed apart as a trophy in the very centre of the building; but, like the good wine which will be one day stored in its rumble, and which needs no bush, this well-built, well-balanced drag requires neither medal nor honourable mention.

From this we may be allowed to conclude that the writer considers that the carriage in question is deserving of either of these distinctions, an opinion proving that the holder looks not at carriage work with carriage-builders' eyes, for the marked inferiority of this carriage to the barouche and the brougham exhibited by the same firm must be apparent to the most casual observer, presuming that habit or education has qualified him to judge. We say nothing at present of the carriages of the same description exhibited by Messrs. Stocken and Ivall & Large.

After telling us that the firm of which Mr. Peters is a member likewise exhibit an elegant park barouche, and, with the exception of the hanging of the body, the front loops of which are too long, this is one of the best carriages in the building, they have also a brougham, part of which is painted and part in plain wood. There is a pleasing quaintness in this object; but we cannot say that it is of better than ordinary make.

Then we must conclude that ordinary make is the best of make. Would the writer have Mr. Peters, when his object in leaving the carriage unpainted is to show the general character of the workmanship, he puts into his carriages, make something extraordinary and out of the common? Did he of the *Telegraph* expect the mouldings to be made of porphyry, and the panels of alabaster, braided with fine gold, and inlaid with pearls of great price, that the wheels should show recent signs of having been taken off the chariot of the sun, that the springs would be made of sliced moon doubly refined, and that the bolt heads should shine in a row resplendent as the belt of Orion? Or what, in the name of all that is extravagant, did he expect? As the orators say, we pause for a reply.

After disposing in the coolest manner, and in the fairest words, of the very excellent carriages exhibited by Messrs. Hooper, he tells us that Messrs. Wyburn & Co. exhibit the old step-piece shape landau, with a skeleton front seat, the footboard of which is a great deal too low. The head, however, falls well, though defective in detail.

We may ask with reason, what is there old about the shape of Messrs. Wyburn's landau? It is, although a step-piece, of the latest extreme "clipper" shape. And what is the footboard too low for? We have something to learn if there be any standard by which the height of this portion of the carriage is to be determined. We cannot complain of the remark that the head falls well, seeing that in this respect it is one of the best-contrived carriages in the Exhibition; but we think, after magnanimously admitting the existence of this one virtue, it would have been as well if the critic had informed us what were the details which offended his sense of perfection; but it is so much more easy to speak generally of detail than to specify and dilate upon the

particular detail intended to be alluded to that we admire the discretion which led the writer to be silent on the matter; but still it is a pity that Messrs. Wyburn are not enlightened as to the particular details wherein they are at fault, as in that case they might humbly and submissively set to work to discover a remedy, and who can estimate what the world has lost by the silence of this oracle, or who can conceive the result which must accrue if such a firm were to work out the suggestions of such a monitor? After letting Mr. Kesterton off easy the writer makes the following startling communication: The new Elcho landau, exhibited by Messrs. Rigby & Robinson, is, in the main, up to the highest standard of coach-building; but they will, in future, have to arrange the falling of the head more in accordance with modern requirements, and to keep the underworks a little lighter.

The Carriage-building trade ought to be grateful to any one who will decide in what consists the "highest standard of coach-building," and, considering that a carriage may be up to that point of excellence, and yet be wrong in its head and heavy in its underworks, the most humble member of the craft need not despair of attaining it. If we dared so far to outstep the bounds of modesty as to criticise anything which is up to the "highest standard," we might remark that one portion of the "underworks," that is to say, the hind part of the perch is unreasonably light. Surely Messrs. Holmes, of Derby, are the most desolate of Coach-makers, and the most sorrow-stricken of men, for the *Telegraph*, in a manner which bespeaks the existence of that delicate sympathy which always accompanies magnanimity, says regretfully that it "cannot compliment the Messrs. Holmes, of Derby, on their carriage, which is but a poor imitation of the Elcho."

We are not informed whose or which Elcho is here intended, or in what respect the imitation is poor. We saw some imitation cane on the body, but the sociable itself seemed real. If the writer means that Messrs. Holmes's carriage is a debased copy of some other, and if he be correct in saying so, all we have to do is to regret not having seen the original; for, considering the excellence of the "poor imitation," the model must have been such a paragon as would eclipse everything of the kind we have met with. It is inconsiderate and selfish on the part of the reporter not to tell us, if he happen to know, where it is to be met with, and how to be seen. Our friend takes a flight of fancy, and favours us with a simile as sensible as it is elegant, for he remarks that the carriage is "on underworks in bare wood, with the iron and steel burnished like the ornamental face of a fire-stove." This remark reminds me of an amusing dialogue which took place one day *apropos* to Messrs. Holmes's carriage.

A lout of a boy, after gazing vacantly at the carriage for some moments, said in strong provincial accents he didn't like to see the wood and the bright iron, he liked the painted ones best. An old woman who was with him, apparently his mother, replied in a manner more forcible than complimentary, "Why, stoopud, tha-ats to show what uts made on." If that discerning old lady had been at the elbow of the writer in the *Telegraph*, her wisdom would have saved him from speaking disparagingly of a thing, the intention of which he had utterly mistaken. He further shows

how hopelessly one may blunder in the most simple matters by the following: That these exhibitors should have gone without medal or mention, while Messrs. Rigby & Robinson are rewarded for the "original design, good workmanship and materials, and well-combined colours" of their carriage, seems just and reasonable enough. There are a few more carriages which deserve attention, and which will be noticed in our next article on the Exhibition.

There is something contemptible or calculated to arouse honest indignation in the sort of criticism which seeks out the unsuccessful and taunts them with their own failure. If the Messrs. Holmes had not been placed above the competition for such reward and token of merit as a medal, by the fact of their having accepted the unthankful though honourable office of distributing them, and had their carriage possessed one third of the good qualities it can lay claim to, no one, with a sense of justice or a scintilla of gentlemanly feeling, could have gone out of his way for the set purpose of mocking them with allusions to their want of success, or drawing what *he* considered to be damaging comparisons, albeit, as in such cases often happens, the comparison might rebound to the credit of the person whom it was intended to injure. We trust that Messrs. Holmes will soon recover the effects of this terrific onslaught, and they will not consider it necessary to sell off and retire far beyond the reach of all coach building connexions, that they may hide in seclusion their shame and confusion of face. It must be some comfort to them, that the *Telegraph* approves of their not having awarded a medal to, or made honourable mention of, themselves.

But the finish of this article promises another, and we wait in suspense till it comes to hand; and with it a semblance of a recantation, worthless for its want of candour, yet amusing as expressing the sudden awakening of a self-complacent journalist to a sense of having blundered egregiously, and yet somewhat aggravating in the equivocal and not over-courageous manner in which he strives to make himself out right, while acknowledging he is wrong.

In commenting on the park sociable with landau head, exhibited by the Messrs. Holmes, of Derby, we expressed an opinion not so favourable as it might have been had we taken for granted the merit of the carriage, relying on the character for excellence which this firm enjoys on a par with the best in England. But we looked with our own eyes, and judged with our own judgment; the result of which perhaps over-bold proceeding was that we felt obliged to pronounce Messrs. Holmes's landau an imitation, and not a successful one, of the Elcho, built by Messrs. Rigby & Robinson. Inadvertently, however, we did the first-named manufacturers an injustice in speaking of their not having gained a medal, and in implying that this was the natural failure consequent on the want of any strikingly good and original quality. The fact is that one of the Messrs. Holmes is a juror, and the firm is therefore honourably disqualified from taking an award. One of our objections to Messrs. Holmes's landau was its having underworks of unpainted wood and of burnished iron. An explanation of this apparently bad piece of taste is that the portions so conspicuous for their want of harmony with the body of the carriage, are not intended to remain in that state, but are left to show the goodness of the material.

The former clause deserves notice for its ingenuity, it is so contrived as to create an impression on the casual reader, which the words of it do not strictly justify; it is said that the opinion expressed is "not so favourable as it might have been if the writer had taken for granted the merit of the carriage relying on the character for excellence which this firm enjoys on a par with the best in England. Would this have been less frank? and it would have certainly been more dignified if the writer had admitted that he was betrayed into coming to a hasty conclusion, without giving the subject the necessary consideration or being prepared to form an accurate opinion. But he proceeds, "we looked with our own eyes and judged with our own judgment." This we must take for granted, while we regret the writer's want of discretion in not availing himself of the counsel of some friend who would have averted the humiliating necessity of half unsaying in one article what had been so boldly put forth in that which preceded it; surely no eyes but his own eyes could have so misled him, no judgment but his own judgment could have been so much at fault.

Again, harping on the "imitation" idea, we are informed now which particular carriage was Messrs. Holmes's model, and it is said to have been the Elcho of Messrs. Rigby & Robinson. While we admit that the first Elcho we remember seeing was built by the last-named firm, but that is so long since that this form of carriage has been adopted in some way or other by the majority of Coach-builders, we are at a loss to imagine how, in the case of two carriages built at the same time, many miles distant the one from the other, and simultaneously appearing before the public, any copying on the part of either of the builders is possible; even supposing that either of them were so straitened in their own resources, or had so mean an opinion of their own abilities as to resort to it.

The cool effrontery with which the writer alludes to the ridiculous position in which he placed himself, by going out of his way to chuckle over Messrs. Holmes's failing to obtain a medal, when they had been already the recipients of higher distinction, would be comical if it did not show the much vaunted cheap press in a rather undesirable light; the writer says, "INADVERTENTLY we did an injustice;" supposing the "opinion of the press" to have an influence, we think that anything intended to do mischief being published through carelessness is a circumstance for which there can be no excuse; errors in judgment will occur to the most painstaking and the best qualified, and so long as human nature is what it is, we must not dream of infallibility; wanton attacks dictated by interest or urged on by malice, will now and then come under our notice wherever there is a free people and a free press; these we expect, can account and are prepared for; but downright carelessness, or take it even in the milder and admitted form of inadvertency, has about it an amount of stolid impudence which admits of neither explanation, palliation, or excuse, and if to obtain to any extent must greatly deteriorate and diminish the influence of the press on public opinion; but we, as doubtless are our readers, weary of this pitiful subject, and we hasten towards a conclusion.

After alluding in both the previous articles to Messrs. Rigby & Robinson's landau, in the last we are reminded of it in the

following terms: "We have already remarked on the successful efforts to revive the old-fashioned landau, with novel improvements. The best of these attempts, beyond question, is that of Messrs. Rigby & Robinson, in their aristocratic-looking though simple carriage, the Elcho."

We shall refrain at present from giving an opinion on the carriage spoken of, as we hope, on a future occasion, to do so at length; but we must say that it seems strange that when there we saw so many carriages, close and open, two and four-wheeled, simple and elaborate, which challenge notice and suggest comparison, the comfort of this particular one should have been so often and so persistently recurred to; this, and a second allusion to Messrs. Peters' brougham being half bare and half painted, we must, we suppose, attribute to "inadvertence." There is much more, a portion of which should, we fancy, have been printed in inverted commas, and some more which would have been as well not printed at all, with a few remarks so apposite and reasonable, that we could wish they were a fair specimen of the whole, and we come to the finish, which we welcome as the most acceptable part of the whole affair; it is a tolerable though incomplete summary of the foreign carriages, and as such we insert it by way of giving a contemporary and "collaborateur" the last word.

"In the foreign department the trade is well represented by several French carriages, the best of which is exhibited by Messrs. Belvallette, Brothers, of Paris and Boulogne, who show some good drawings, as well as their neat and commodious landau. Messrs. Jones, Brothers, of Brussels, exhibit several good carriages; and Messrs. Dick & Kirschten, of Offenbach, near Frankfort, and Mr. Schwartz, of St. Petersburg, are contributors of noteworthy objects to this department. The last-named builder has made great progress in his craft within the last few years, and bids fair to eclipse the best continental builders."

RAPPORT DES VOITURES DE L'EXPOSITION UNIVERSELLE.

[Avis.—La circulation étendue de ce Journal en France et dans les autres pays étrangers, nous a décidés de donner chaque mois, à nos lecteurs étrangers, deux pages en Français, langue la plus connue et la plus répandue sur le Continent. Comme il y a beaucoup de carrossiers qui aimeraient prendre ce journal depuis le commencement du Rapport illustré des Voitures de l'Exposition Internationale, c'est-à-dire depuis le mois de Mai, nous nous proposons de donner dans ce numéro l'explication des illustrations des mois de Mai et de Juin, dans le prochain numéro celles de Juillet et d'Août, et en Octobre nous expliquerons les illustrations de Septembre et d'Octobre. Après cela nous donnerons une page sur les illustrations et une page sur d'autres choses qui peuvent être intéressantes aux carrossiers.]

LES ILLUSTRATIONS DU MOIS DE MAI.

Nous commencerons par remarquer l'élégant et bien-construit carrosse (Pl. I.) de Monsieur Woodall; il est comme on

le verra de la forme dite *Step-piece*, maintenant un peu en désuétude quoi qu'on ne puisse pas dire, que ce soit une voiture à l'ancienne mode.

Ce qu'il y a de particulier dans cette voiture, et ce qui réclame surtout notre attention, c'est le moyen que Monsieur Woodall a inventé pour remédier à un des plus grands inconvénients, que les personnes se servant de voitures fermées ont éprouvés, c'est-à-dire le manque de ventilation, un progrès caractéristique de nos jours quand l'humanité entière sent l'importance de l'oxygène et qu'on ne voit plus le danger qu'il y a, de sortir de salles chaudes et d'aller en voiture avec les glaces baissées. Le bût est obtenu, si l'on s'arrange de manière à obtenir un passage d'air pur, sans néanmoins avoir de courants d'air qui pourraient être nuisibles. Ceci est accompli par le moyen d'une espèce de découpeure d'ouvrage sculpté placé dans une frize au dessus des glaces et appelée frize de pavillon. L'appareil ventilateur est caché derrière cette nouvelle sculpture; nous hésitons presque à donner notre opinion tant qu'on gout, attendu que l'œil n'est pas habitué à voir cette frize découpée au dessus des glaces, et qu'il faut toujours un peu de temps pour s'habituer à la nouveauté. Nous ne pouvons nous empêcher de penser que la ventilation ne sera parfaite à moins que l'appareil ne soit placé au dos du corps.

D'après ce que nous comprenons, l'invention de Monsieur Woodall n'a rien changé au dessus, aux côtés et au dos qui sont semblables à ceux des voitures ordinaires; conséquemment, il n'y a pas de courant du dos au devant de l'équipage, ce qui, selon nous, est le seul moyen de parfaite ventilation d'un équipage. L'application de cette invention au haut du dos, remplirait cette condition. Mais quoique cette invention soit capable de progrès il est impossible de renier que les inventeurs méritent les remerciements et la reconnaissance du public qui se sert de voiture pour avoir donné une preuve si pratique de leur sollicitude à l'égard de la santé, d'avoir eu du succès jusqu'à un certain point dans une invention dont l'utilité et les avantages sont incalculables.

Pl. II., Fig. 1.—La Voiture-traineau de M. Burnett dite "Gorilla de l'Exposition."

Nous n'avons rien à faire avec les noms qu'il plaît aux inventeurs de donner à leurs productions ou bien, nous nous étonnerions de ce qu'un Gorilla a à faire avec une voiture, ou si nous connaissions Lindley Murray et la signification des mots Anglais, nous pourrions demander quelle espèce particulière le Gorilla de l'Exposition est. C'est, nous sommes portés à le croire un specimen du génie que Monsieur Du Chaillu ne connaît pas, et l'existence duquel Monsieur le Professeur Owen mettrait en question avec une dérision incrédule; mais si le nom est inexplicable et vilain la chose elle-même est extrêmement simple et jolie.

Le modèle de cette voiture est très bon, et le fini en est de bon goût et attrayant, quoique les couleurs soient ce qu'on peut appeler vives, ce qui n'est que secondaire et qui est tout-à-fait excusable dans une voiture d'étalage ou d'exposition publique, et la combinaison pour prévenir le mouvement du cheval est aussi simple et ingénieuse qu'elle est effective et originale, et cela, avec la très simple méthode, d'ajuster la balance de la voiture pour deux ou pour quatre personnes ce

qui prouve que Monsieur Burnett connaît bien les conditions requises, de ces voitures, et qu'il possède dans un haut degré les talents mécaniques pour mettre ses connaissances en exécution. La manière dont on peut se servir de cette voiture comme d'un traîneau est une recommandation dans ce pays: lorsqu'on pense qu'en-terme moyen il n'y a, à peu près que sept jours dans sept ans qu'on puisse se servir de traîneau, il ne vaut pas peine d'en entretenir un, quoique l'avidité avec laquelle on tâche d'en obtenir, lorsqu'on peut s'en servir, prouve quelle fantaisie on a pour ce moyen de transport: ainsi une découverte très désirable a été faite à laquelle jusqu'ici on n'avait pas pensé. Au dessous de la voiture exposée il y a un soutien de fer léger, qu'on pourrait facilement remplacer par un fer plus approprié pour glisser sur la neige ou sur la glace. Quand ce changement sera fait, soit pour rester, soit seulement pour le présent, le propriétaire de ces petites voitures, pourra en "enlevant gaïement les roues," s'épargner la peine inutile d'aller d'un carrossier à un autre pour demander ce qui n'est pas plus probable qu'il trouve, que s'il désirait avoir un chariot à la Pharaon.

L'aise, la légèreté, l'apparence, la convenance et le bon marché de cette petite voiture, la rendront nous ne doutons pas, parmi une certaine et une grande classe de personnes une voiture très favorite.

Pl. II., Fig. 2.—Le Landau miniature perfectionné de Monsieur Rogers est une petite voiture bien modelée, bien proportionnée et bien pacte; mais, d'après ce que nous pouvons juger (nous ne l'avons pas vue fermée) nous pensons qu'il n'y a pas trop de place pour quatre personnes de taille ordinaire. Quant au siège du cocher il n'y a qu'un cocher très petit qui puisse commodément s'y asseoir. Nous supposons que le cocher de ce landau miniature doit se pourvoir de jambes miniatures. Nous avons remarqué tant de voitures où la place pour les pieds du cocher est trop petite, ce qui nous a donné l'idée de faire venir des Mussulmans qui, par leur habitude de s'asseoir les jambes croisées n'ont pas besoin de place pour leurs jambes, position, dans laquelle nous pensons qu'il serait très difficile de conserver la fermeté du maintien nécessaire pour mener une voiture. Après tout, peut-être le moyen le plus simple d'éviter cette difficulté, sera, pour les carrossiers de faire un siège assez grand pour des mortels ordinaires avec des jambes ordinaires. Nous n'avons qu'à renvoyer nos lecteurs au dessin, pour leur prouver clairement que Monsieur Rogers a produit une très jolie petite voiture dont le fini est très beau et qu'il a fait beaucoup pour rendre le Landau utile et compatible comme une voiture à un cheval.

LES ILLUSTRATIONS DU MOIS DE JUIN.

Pl. III.—La voiture exposée par Messieurs Holmes, décrite dans le catalogue comme "Park Sociable, avec capote de landau, montée à double suspension," dont nous donnons un dessin, est, sans aucun doute, une des voitures les mieux construites dans l'Exposition. C'est une voiture de grande dimension à deux chevaux, la supériorité en est si frappante et si grande, les défauts si insignifiants et en si petit nombre, qu'on n'a pas besoin de parler longuement sur ce sujet.

Quoique la caisse soit un specimen de première classe pour

la bonne confection, c'est de la voiture, à l'ouvrage au train de forge et à l'arrangement général que la plus grande louange est due. Tout l'ouvrage en fer est bruni ou poli brillant comme de l'argent, et après l'avoir examiné de près, il nous a été impossible de découvrir une tache ou un défaut, et non seulement il est bien fait et parfaitement fini, mais autant que nous pouvons le juger, nous n'hésitons pas à le dire que la force requise de chaque portion est bien déterminée, et quoique nulle part elle ne soit surchargée, il n'y a pas de points faibles qui nous fassent douter de la sûreté de cette voiture. Nous indiquerons particulièrement les mains de devant, qui sont un spécimen parfait d'ouvrage en fer dans la carrosserie. La flèche est un beau morceau d'ouvrage quant à la forge ainsi que quant au fini.

Les diverses pièces de fer sculptées méritent notre attention, et nous font supposer que le forgeron était un sculpteur habile.

Les ressorts sont finis de la meilleure manière, mais nous pourrions désirer que les sous-pentes ne forment pas un angle aussi aigu ou saillant, comme elles sont trop courtes en proportion d'une telle voiture: il est à regretter qu'on ne puisse d'une manière ou d'une autre leur donner plus de pente. Par le fait que la capote se rabat les mains doivent être assez longues, afin qu'elles ne laissent que peu de place pour la sous-pente.

Si la capote touchera la sous-pente c'est une question, qu'une forte charge, en montant, résoudra. Si nous ne supposons pas que la chose a été parfaitement essayée nous douterions. Si c'est inévitable ou non il n'y a aucun doute que la position comparativement droite des sous-pentes diminue grandement la grâce et l'élégance de la voiture.

Le genre et la coupe des ferrures du siège et des ailes de devant font un très bon effet, et on peut dire que ce n'est pas seulement parmi les plus jolies choses, mais aussi parmi les plus originales dans les voitures.

Quant à la proportion générale, nous remarquerons avec toute déférence qu'elle aurait été plus près de la perfection si les roues de derrière avaient été plus hautes, alors les ressorts de derrière, sans nuire à l'apparence, auraient pu être mis un peu plus en arrière, de manière à ce que la sous-pente de derrière, (comme nous l'avons remarqué courte en proportion de l'ensemble) puisse être agrandie au grand avantage de la voiture à tous égards.

L'ensemble est un spécimen un peu lourd de la forme dite en Angleterre "d'Elcho," les principaux panneaux peints en imitation de rotin. Les autres parties sont bleues, et la confusion des filets et rechampis n'est pas un triomphe de bon goût: le large rechampi couleur crème dans le milieu de la moulure, unie à de nombreux filets de bleu, de rose, et de blanc nuit grandement à l'effet général.

La doublure de soie riche avec des fleurs-de-lys et de trèfles, de rose et d'épine façonnées sur un fond bleu-clair est extrêmement jolie; les accotoirs se relient au dossier par un seul et même boudin qui encadre tout le bas de la garniture, le sus dit bondin est parfaitement fait en forme d'une courbe hardie, et est certainement un grand progrès du vieux style de garniture, quoique dans une voiture découverte, on pourrait objecter à cette garniture comme apte à retenir la poussière; enfin si le malheureux rose dans le galon, et ce qui est encore de plus grande conséquence le bleu de la soie, n'offensaient pas notre

idée de bon goût, nous serions portés à prononcer les garnitures de cette voiture comme parfaites. L'ouvrage de cuir, qui n'est pas peu important dans le fini d'une voiture, n'est pas surpassé, même par les étrangers, qui se sont toujours distingués dans cette branche. Le tout pris ensemble nous n'hésitons pas à donner notre sincère louange à Messieurs Holmes, pour leur très belle voiture (tout pris en considération) comme un des plus parfaits spécimens de carrosserie qui aient été construits; soit à l'égard du dessin et des arrangements mécaniques, ou de la supériorité du travail, c'est un ouvrage dont le premier des carrossiers qui qu'il soit, puisse justement être fier.

Pl. IV.—Nous ne savons pas si la voiture de Messieurs Thrupp et Maberley demande des remarques; le contour général est parfait, avec l'exception de ce qui nous semble, une légère raideur dans la partie du coude postérieur, si c'est la faute des recouvrements ou de la forme de la caisse nous ne pouvons pas le dire. La voiture est peinte d'un bleu magnifique, avec rechampi de bleu clair, doublée de blanc et vernissée de la plus supérieure manière.

La voiture est suspendue à de communs ressorts elliptiques le devant, et sur 5 ressorts derrière. Nous aurions pu désirer que l'extraordinairement long mi-ressort ait été maintenu plus mécaniquement. A moins que nous ne soyons grandement dans l'erreur les trois verrous n'ont pas seulement à résister au poids du corps agissant sur un grand levier, mais aussi à la pression des platines de ressorts. S'il y a un moyen d'enlever la force des platines aux verrous tout ce que nous pouvons dire, est que c'est soigneusement caché avec une ingénuité dont le résultat a peu de valeur. Nous remarquerons aussi que, quoique la voiture soit à presque tous égards bien finie, il y a des parties de la ferrurerie qui sont laissées dans un état un peu brut.

Si de nombreuses visites à l'Exposition Internationale ne nous avait pas préparés à nous attendre à tout, nous serions étonnés de voir les marche-pieds par lesquels, les constructeurs ont défiguré cette très élégante voiture. Comment après avoir produit une telle réunion de lignes gracieuses comme celles qui y sont exposées, les constructeurs ont pu souffrir que l'effet soit gâté par ce marche-pied à l'ancienne mode qui nous fait l'effet d'une crémaillère est une des choses qui nous confondent. Peut-être le marche-pied a-t-il été placé là pour rehausser la beauté par contraste; probablement pour le même but, pour lequel les compositeurs de musique insèrent des sons discordants. Quelque soit la raison ou l'intention, le résultat selon nous, n'est rien moins que satisfaisant; il serait consolant à notre sens de convenance dans l'art de construire les voitures si ces marche-pieds étaient enlevés tout de suite; et c'est seulement notre opinion de *Meum* et de *Tuum* ou plutôt la crainte des idées d'une autre personne sur le même intéressant sujet qui nous a empêché de nous faire espérer d'avoir cette consolation.

La doublure est d'un gris délicat, la voiture tout ensemble est un spécimen très supérieur de cette forme de voiture, peut-être le plus plaisant et certainement pas le style le moins gracieux de notre temps, un style qui, probablement résistera contre les puissantes prétentions de beaucoup de nouveautés, quelque excellentes ou quelque favorisées qu'elles soient par la mode.

L'explication des illustrations qui n'ont pas rapport à l'Exposition, paraîtra dans le prochain numéro.

RAPPORT DES VOITURES DE L'EXPOSITION UNIVERSELLE.

LES ILLUSTRATIONS DU MOIS DE JUILLET.

LANDAU (Fig. 5).

C'est avec plaisir que nous présentons à nos lecteurs, un dessin du Landau de Messieurs Silk et Fils, et nous désirerions pouvoir leur donner une idée des traits qui distinguent l'original, mais ils sont d'une nature à rendre difficile à l'artiste de les reproduire avec succès, à moins que le dessin soit sur une plus grande échelle, car nonseulement devrait-il donner la forme de la caisse (ce qui à l'égard de la plupart des voitures est suffisant), mais chaque partie et chaque morceau de bois et d'ouvrage de forge grand ou petit a été évidemment si bien calculé et avec une telle appréciation du but qu'il doit remplir, le bon goût prouvé dans la hardiesse et la beauté des lignes, la complète adaption pour son objet particulier, tout est si bien, qu'il est impossible de rendre justice à l'excellence de cette voiture à moins que chaque partie soit dessinée séparément. Pour prouver la vérité de notre assertion nous remarquerons, le support du ressort de travers et la traverse sur laquelle le siege de derrière est placé; ce qui est vrai, de cette importante affaire ne l'est pas moins de la plus triviale. Il paraît qu'on a donné beaucoup de soin aux moindres détails, que rien n'a été considéré comme trop petit pour "ne pas être de conséquence, de là cette approche de la perfection; il n'y a qu'une attention scrupuleuse à ce que la plupart des personnes appellent des bagatelles qui puisse l'obtenir. Quelqu'un dit à un grand peintre, le voyant donner une légère touche à une de ses œuvres. Ce n'est qu'une bagatelle. Bagatelle (dit l'artiste), les bagatelles font la perfection, et la perfection n'est pas une bagatelle.

La caisse est de la forme dite *step-piece*, et pour notre part, quoique le contour soit dégagé et hardi, nous ne pensons pas que le dessinateur y ait déployé toute la grâce que ce genre de voiture peut admettre. Le dessin est caractéristique, et a cette originalité qui est un des traits si frappant dans la plupart des voitures des Messieurs Silk, qualité qui est remarquable par son absence dans la majorité des exposants dans ce département, mais il est facile de s'imaginer que cette voiture aurait pu être grandement perfectionnée sans nuire à son caractère distinctif ou à son originalité, mais quelque soit la diversité des opinions à l'égard de la forme ou quelque différentes que soient les idées à l'égard du mérite ou démerite du style, et de la confection, nous disons, sans hésiter, que c'est un ouvrage de premier ordre. Nous pourrions mentionner entr'autres choses, la perfection et le beau fini des moulures, l'exacte ajustement et l'action libre des portes comme preuves d'une grande excellence de travail et d'habileté mécanique peu ordinaire. A l'égard de la voiture et de l'arrangement général qu'il nous suffise de dire qu'ils sont dignes de la caisse, que rien n'est omis de ce qui est nécessaire, et cependant qu'il est impossible de découvrir quelque chose de superflu: chaque verrou a son but, sa force voulue, et occupe la place et la position convenables pour remplir ce but. La vérité de ce que nous venons d'avancer devient plus apparente le plus minutieusement on examine cette voiture.

A l'égard de la peinture et de la garniture, celle-là est verte relevée de rouge. La couleur prédominante est très belle, et a une certaine vigueur et une certaine richesse dignes de notre attention. Le verni est propre et, autant que nous avons pu le voir, sans tache et sans faute, et possède ce lustre, cet éclat qui prouve qu'un ouvrier habile y a mis la main. Le relief ou relevé rouge surtout de la caisse n'est pas à notre goût: nous pensons, que dans les couleurs l'harmonie est préférable au contraste, et, que si on a recours au contraste, ce ne devrait pas être seulement avec deux couleurs prononcées, mais qu'il devrait y avoir, pour ainsi dire, une couleur neutre pour en adoucir l'effet. Nous n'avons pas assez donné de temps à l'étude des couleurs, pour que nous puissions prendre sur nous de donner une opinion décisive, et nous serions fâchés, qu'on crût que nous cherchions à faire la loi, sur un sujet qui, après tout, est plutôt un sujet de fantaisie que de fait, mais nous ne pouvons nous empêcher d'exprimer notre regret de ce que nous appellerions, un goût plus pur, n'ait été déployé dans la peinture de cette voiture.

La garniture est une riche soie verte, d'un beau dessin fait d'après le modèle de Messieurs Silk et Fils; le galon est aussi vert d'un dessin élégant; le rechampi de la voiture considéré, quant au matériel et à la manière dont on l'a employé, est, selon nous, supérieur à tout ce qui a été exposé.

Fig. 6.—LE NOUVEAU CABRIOLET BROUGHAM.

Cette voiture est le dernier et peut-être le meilleur essai dans ce genre, le but étant d'unir le confortable du brougham à la légèreté du cabriolet; car nous pensons, que pour ce genre de voiture le tirage est léger; la facilité avec laquelle les voyageurs peuvent voir au dehors et la place qui leur est destinée (aussi spacieuse que dans beaucoup de petits broughams) doivent en faire une voiture très agréable. Beaucoup d'hobilité a été employée pour enlever tout objet qui aurait pu surcharger les forces du cheval, ceci a été accompli avec tant de succès que nous considérons que cette voiture est une des plus légères de ce genre que nous ayons vues, et nous pensons que nous pourrions trouver sans sortir de l'Exposition un spécimen du commun Hansom (Fiacre) beaucoup plus lourd, quoique la place offerte aux voyageurs soit beaucoup plus petite. L'arrangement des portes (la principale difficulté) est, dans le tout, satisfaisant. Mais nous remarquerons que les serrures et les poignées ne sont pas tout-à fait ce qu'elles devraient être et ne sont pas bien ajustées.

Il y a des poignées qui ne sont pas employées sur les côtés, parce que cette voiture s'ouvre sur le devant et non pas aux côtés; ces poignées sont un peu lâches, et sont fixées sans soin; un peu plus d'attention à cette petite mais importante chose, et qui est si souvent négligée, aurait grandement ajouté au titre d'excellence que cette voiture mérite.

Cette voiture, considérée comme un spécimen de carrosserie, est, nous n'hésitons pas à le dire, un ouvrage de première classe. Une partie de l'ouvrage au train de forge est digne de notre attention. Nous remarquerons le support de travers comme un spécimen de forgerie compliquée qui fait honneur à celui qui l'a exécuté. Le reste de l'ouvrage au train de forge est remarquable par la grâce, par l'habileté mécanique du dessin, par une

adress et un soin si grands dans l'exécution qu'il attire notre attention et réclame notre admiration.

LES ILLUSTRATIONS DU MOIS D'AOUT.

LANDAU PAR STAREY (Pl. 7).

Starey, S. R., Nottingham, landau léger (dit Granville), avec une capote qui se rabat plat, avec des ressorts, des rouleaux élastiques, et des roues garnies en caoutchouc.

Parmi le grand nombre de carrossiers qui ont mis leur cœur et leur âme à perfectionner la voiture des voitures, c'est à dire, le landau, et parmi les résultats de leurs efforts qui forme une si grande portion de la présente Exposition, il faut accorder une place honorable à Monsieur Starey, car quel que soient les différentes opinions à l'égard de la valeur de son ouvrage, il faut que tous s'accordent que personne n'a mieux compris les besoins de nos jours, que personne n'a été plus actif ou plus zélé dans ses efforts pour y satisfaire que personne n'est plus prêt à prendre parti des découvertes scientifiques qui peuvent être utiles aux carrossiers, comme le prouve la voiture exposée qui a été raffermie d'un bout à l'autre avec de l'acier doux ainsi que différents autres perfectionnements qu'il a introduits.

A l'égard de la confection de la voiture, elle nous paraît solide et sans faute, et il est évident qu'on s'est occupé avec soin de tous les détails. Le dessin est bon, et les proportions sont assez bonnes, quoique l'effet général soit gâté par l'extrême profondeur de la cave et par l'excessive largeur de la moulure de ceinture, qui donne une certaine prépondérance au noir, et conséquemment une certaine lourdeur qui n'est pas en rapport avec la construction, les dimensions, et la forme de la caisse.

A l'égard du plan pour rabattre la capote, nous devons avouer que nous en avons vu qui remplissaient aussi bien le but voulu, sans les difficultés que nous voyons ici. Que la capote se rabate, et qu'ainsi l'objet principal est obtenu, c'est ce qui est évident, mais la manière dont cet objet est obtenu laisse une pointe de bois en saillie de chaque côté de la porte, ce qui, nonseulement est vilain, mais qui est propre à attraper les châles, les robes, etc.

La porte a été faite d'une grandeur peu ordinaire, pour remédier, nous supposons, au désavantage que nous venons de nommer, mais le résultat n'est pas satisfaisant. La grandeur augmentée de la porte donne à la voiture une apparence très lourde en détruit les proportions habituelles et augmente beaucoup les mouvements ou les fonctions des charnières, surtout comme le cintre ou la courbe de côté rend l'arrangement des charnières très difficile. Mais étant d'une force supérieure, bien ajustées et fixées de la meilleure manière, elles rempliront leur fonction, et nous ne doutons pas qu'elles se prouvent aussi bonnes que l'ouvrage ordinaire, quoiqu'elles soient très surchargées, et selon nous sans nécessité.

Les avantages qu'offre la large porte, en laissant une ample espace et assez de place pour la mode présente des dames réconcilieront avec la laideur dont on se plaint, et un arrangement fait pour le confortable et la commodité des personnes qui se servent de voiture, et qui tend à faciliter l'entrée et la sortie devrait nous disposer en sa faveur, quelque étrange il pût nous paraître à première vue, ou quelque difficulté mécanique qu'il implique.

Comme il a été remarqué, et qui, voyant la voiture ne le remarquerait pas, la coquille est trop droite, cette erreur est si évidente et si patente qu'il est seulement nécessaire d'y faire allusion, mais ce qui amoindrit cette erreur c'est que la coquille n'est pas dans le chemin des chevaux, et nous ne pourrions pas en dire autant de toutes les coquilles que nous voyons.

Les arrangements pour ce qui regarde l'expositions des ressorts, des roues de la voiture et nous paraissent sans faute, et prouvent qu'on y a déployé beaucoup d'intelligence, de soin, et d'habileté. L'ouvrage au train de forge, nous devrions plutôt dire l'ouvrage d'acier est parfait à l'égard du dessin et de l'exécution. Une partie de l'ouvrage de forge est surtout digne de remarque: si elle avait été modelée par un sculpteur la forme en n'aurait été plus gracieuse, et le cône graduel n'aurait pas offert plus de beauté; le fini, comme tout le reste de l'ouvrage au train de forge, en est exquis. La menuiserie du train réclame aussi notre admiration par sa légèreté, sa bonne forme, et son efficacité. Le fer et le bois ont cette apparence propre et tranchante, qui caractérise toujours l'ouvrage de première classe.

Pour ce qui regarde le perfectionnement des roues en caoutchouc nous ne les avons pas vues en action, en sorte que nous ne pouvons pas en donner une opinion décidée, mais nous devons avouer que nous doutons qu'elles ne fassent pas de bruit; il y aura toujours le choc du métal sur la pierre si la route est pavée, et à moins que ceci n'ait été empêché, nous ne pensons pas que le caoutchouc entre le cercle et la roue puisse accomplir ce but; que cet arrangement diminue beaucoup le bruit, et rende l'action plus facile, c'est ce que nous ne doutons pas, cependant nous pensons que tout cercle flexible, quelque en soit le mérite aura toujours le défaut d'accroître le tirage, car quoique, d'un côté on puisse dire, que les cercles étant flexibles, les roues surmonteront facilement les difficultés causées par les inégalités de la route, il ne faut pas oublier, d'un autre côté, que le cercle de la roue est brisé, et que la perfection du cercle de la roue est le principe de toute importance, pour qu'elle dille librement. Du reste, c'est une question que l'usage seule peut résoudre, quoique nous soyons prêts à admettre l'ingénuité qui y a été déployée.

La garniture, quoique d'excellent matériel et de bon goût, aurait pu être perfectionnée à l'égard de la confection: le galon sur les devants des coussins ne sied pas aussi bien que quelques uns que nous avons vus.

Nous considérons cette voiture comme un specimen digne de la carrosserie moderne, réunissant tant de perfectionnements modernes, et si bien calculée à satisfaire à beaucoup de besoins de nos jours. Nous regrettons que ces défauts nous empêchent de louer cette voiture comme étant d'un mérite absolu.

Fig. 8.—VOITURE DITE STANHOPE PHAETON WAGGONETTE.

C'est avec beaucoup de plaisir que nous présentons à nos lecteurs, un dessin de cette agréable petite voiture, construite par Messieurs Fuller et Fils, de Bristol. Il n'y a rien de nouveau qui demande nos remarques, et comme nous n'avons rien à dire si ce n'est d'exprimer notre haute admiration, notre notice sera nécessairement courte. Cette voiture, considérée à l'égard de la forme, de la légèreté, de la proportion, et du fini,

est un spécimen parfait de carrosserie légère, et comme telle est digne de la mention honorable qu'elle a obtenue.

Ce qui lui donne l'air si attractif, c'est la forme de la fausse porte, et la parfaite harmonie qui existent entre ces derniers et toutes les autres lignes. La menuiserie et l'ouvrage au train de forge sont admirables, et nous ferons surtout remarquer à nos lecteurs l'excellence et le bon fini du devant train.

Les arrangements méritent sur notre attention comme n'étant pas disgracieux, comme fonctionnant facilement, et avec efficacité. La petite poignée argentée au côté est supérieure à la plupart des autres inventions pour le même but que nous nous rappelions avoir vues. La peinture et la garniture sont dignes du reste de la voiture, à l'égard du goût et de la confection. Ce phaëton-waggonette est malgré, son genre simple et sans prétention, un objet remarquable dans la grande exposition de carrosserie de mérite qui l'environne.

OUR ILLUSTRATIONS.

CORBEN & SONS, London. A diaropha carriage.—As we shall have an opportunity of speaking of the diaropha, as an invention, on a future occasion, when we notice Messrs. Rocks' very excellent carriage, and as Messrs. Corbens' and Messrs. Rocks' plans are identical, we shall abstain here from discussing the system at any length, and consider the carriage, of which we furnish a drawing, without reference to the advantages or disadvantages of the diaropha principle. This well-built carriage, although presenting no very striking features or peculiarities which demand especial attention or call for any lengthy remarks on our part, has some points about it which should not be hastily passed by or left without a word or two; the shape, as will be seen from the illustration, is a modification of what used some years ago to be known by the name of the "Pelham," a very convenient style of carriage, and capable of taking forms graceful enough on account of the drop in the doorway; it may be built easily, accessible by a single step, without having the appearance of being hung too near to the ground, and, on this account, is, as a light carriage, preferable to the barouche or the round bottom sociable.

Messrs. Corbens' carriage, without possessing any claims to the merit of novelty, or putting forth any pretensions to originality, has a character about it which proves that the designer was no mere copyist, and that he bestowed some pains on, and brought some experience, and a certain amount of good taste to his task, although we could have wished, for the sake of general proportions, that the quarters had not been cut up so abruptly, or resolved into such sharp points at the elbows, as the smallness of the quarters gives to some other portions of the carriage too much importance, and causes them to appear somewhat too large. In building a carriage it is not often advisable to make certain parts unusually small, as such a proceeding not seldom gives a heavy appearance to the parts contiguous, thereby gaining nothing in respect of lightness, and greatly damaging the general effect; and this, we consider, to be the case in the article under notice, the result of the quarters being cut off so fine, and being, so to speak, so "long drawn out" is

that the door, especially towards the centre, seems to have too much depth, but, withal, we are willing to admit that the carriage, taken as a whole, has about it a certain look of lightness, which goes far to compensate for what we consider to be a want of general and just proportion; while we cannot but think that if the quarters were something bolder, and a little less pointed, the carriage would have gained in grace, and presented altogether a handsome appearance; and we are persuaded that the change would not in any respect have been attended with disadvantages. And if our ideas be correct with respect to the vehicle when open, we imagine that our remarks will apply with two-fold force when it is closed, for it appears to us that the immense black top quarter will not only contrast with, but will go far to extinguish and utterly suppress, the little cane painted bottom one; we cannot see what is to save the body, when closed, from looking all top quarter, and being, on that account, highly objectionable to most tastes, and contrary to the generally received notions of carriage building propriety.

As to the outline of the body, of which the side sweep is rather flat for the present fashion, we cannot pronounce it to be "perfection;" there are certain trifling irregularities and some strait places in the bottom side and corner pillar line, especially the front corner pillar near the elbow, which need no practised eye to discover, and at which a taste, by no means fastidious, might take offence; in fine, we are inclined to believe that the body might have been modified, redrawn, and remodelled to the great advantage of the truth of its proportions and the pureness of its lines; we would not have it inferred that we consider the defects are either great or numerous, for, after all, the faults (if faults they may be called) are to us so trifling, when we think of the monstrosities in coach building which daily come under our notice, that we should not think of noticing them unless from the position of the carriage as a portion of the Great International Exhibition, we regard it as challenging criticism and inviting observation.

The under carriage is well-arranged, the ironwork commonplace, and needs no remark; the body is hung on inverted C-springs and leather braces behind, and common elliptic springs in front; and Messrs. Corben & Sons, in the Illustrated Catalogue, state that their inverted C-spring is "as easy as a carriage on the ordinary C-spring and heavy perch. With respect to this assertion we must admit that it somewhat surprised us, but while we feel bound to take Messrs. Corben & Sons' word for the fact, we may remark that we should hesitate to take our own; we cannot see what there is to counteract the effects of the unsteadiness of the draught, or to prevent the movement of the axle from being communicated to the body of the carriage; and considering that a perch effectually deals with this difficulty, Messrs. Corben & Sons will, we trust, understand that we pay them a compliment when we say that on their account, rather than on the conviction of our judgment, we accept their statement. Messrs. Corben & Sons state also that their improved inverted C-springs, when applied to a carriage, "do not increase its weight beyond the usual elliptic spring carriages." As to the weight in the scale this is sufficiently obvious; but, assuming it to be generally understood that the weight in the scale and the weight viewed practically, as related to the draught and

wear of horses, we must take exception to the statement with respect to the weight. Viewed in the former light, we are perfectly at one with Messrs. Corben, but in the latter and more practical and important, we must join issue with them, as we cannot for one moment suppose that a carriage having four wheels, which change the relative positions at every step, can follow the horses so easily as one in which the four wheels bear at all times so nearly the relative positions towards one another as they do when fixed on a carriage hung on the common elliptic springs. It is obvious that the C-spring and brace give a great amount of ease to the riders, but it is also as obvious that they are exceedingly ill-adapted to give ease to the horse. So far as we can judge of Messrs. Corbens' arrangement the axle may take not only a movement from back to front, but from side to side; and until we are convinced to the contrary (and we are always open to conviction, and eager to be set right where we can be proved to err), hold that the actual working weight of the carriage on the road is increased at the very lowest estimate ten per cent.; and we thus freely state our opinion, as we have not arrived at it without close thought or proper deliberation, and we feel assured that we shall be borne out in it by all who, without prejudice or predilection, have given the subject the attention it deserves, or who, from practical experience, may be supposed to be capable of arriving at a just conclusion, and thus we leave the subject; remarking, by the way, that it should be remembered that the amount of tension on the brace or strap which leads the axle and steadies the draught varies according to the weight in the carriage and the inequalities of the road; thus, if there happens to be more weight on one side of the carriage than on the other (which is often or at most times the case), or if one wheel goes into a hole or over a stone or other obstruction, the proper and exact train of the carriage is immediately interfered with,—and the evil does not end here, for it is reasonable to suppose that the wear on the axletree arms must be greatly increased, and thus a new source of discomfiture brought into action.

The painting of the carriage is decidedly good, the imitation cane is executed in the best manner; in fact, equal to any, and superior to most we have seen; but we doubt the propriety of caning the entire panels of the body, for, however judicious it may be for an open carriage, and however light it may look, we do not think that the effect produced when the carriage is closed will be one to be desired, and we imagine that to most tastes it will be found objectionable; but as this is a matter of "pure fancy," we do not attach much importance to it, and of course only speak of it as it appears from one point of view; no absolute rule is infringed, nor is any principle involved, and therefore criticism should content itself to be silent on the matter; and this remark will apply to the question of the propriety of painting a carriage blue relieved with red, and lining it with drab relieved with blue. The trimming and leather work are good; the lamps are neither pretty, nor, to our thinking, quite suitable to the carriage; of most of the remaining details and the general finish we can speak in the highest terms of commendation; and altogether, considering the carriage as a whole, notwithstanding the few defects we have felt it our duty to point out, and not forgetting the remarks we have felt our-

selves called upon to make, we unhesitatingly pronounce Messrs. Corben & Sons' Diaropha to be, in our opinion, a thoroughly good piece of work, and a very creditable specimen of English Coach-building.

THE TESSATEMPORA.

Windover, Charles Sandford, Huntingdon. A carriage adapted for the four seasons, forming a Barouche, Sociable, Coach, and Landau.—Of this carriage, which is styled Windover's Registered Tessatempora, we cannot speak in very flowing terms, nor do we think it likely that the number of those who seek to avail themselves of the multifarious advantages it offers will be very great; it is spoken of and put forth as "the only convertible carriage adapted for the four seasons." We cannot see with what reason, as it appears to us, that a carriage, which can be at any time speedily changed from a close to an open one, is a convertible one, and is, moreover, adapted to any season, or any changes of season which, in the ordinary course, is likely to occur. We are at a loss to understand why a carriage with a head, presuming that the head drop properly, is not as well adapted to the summer season as one with the head taken off and left suspended in the coach house; this taking off the head and leaving it at home reminds us of a great philosopher, who was counted wise not only in his own generation, but in certain subsequent ones, and who had a great liking for that sleek coated domestic animal the cat—so studious was he of the convenience of his pet, that he caused the carpenter to cut a hole in the bottom of the door so that puss might have at all times free ingress and egress in accordance with the feline whim; our philosopher having become likewise possessed of another favourite, in the shape of a pretty little kitten, considerably caused a smaller hole to be made for its especial accommodation. A friend calling one day at the study, asked the man of books why he had that hole in his door. Which, the large one? Yes. Oh, that's for the cat, because she used, poor thing, to mew outside the door until she was let in. But what is the little hole for then? Oh, that's for the kitten. The friend, who was not philosopher enough to hide his merriment, sagely asked if the small cat couldn't get through the large hole? Oh good, good, was the reply, I never thought of that. The taking a head of a carriage, and leaving it hanging in the coach house, appears to us as very like making the small hole for the small cat. Further, the kneeboot flap is removed when the carriage is adapted for summer wear, and thus either the rest for the shoulders of the sitters, in the front seat, is very imperfect, or it is necessary to have a stuffed back rail to fix on, and thus a certain amount of unfastening and fastening is involved, without, so far as we can perceive, any advantage being gained. We might suggest, moreover, that, before we have a carriage so especially adapted for summer, as distinguished from spring and autumn, it would be as well to determine what our summer really is, when it begins and terminates, and when the vehicular metamorphose ought to be effected. An English summer has been often described as "three fine days and a thunderstorm," and our experience scarcely warrants us in quarreling with the definition; and it is certainly so near the truth, that to strip a carriage at any time

of such provisions against wet weather, as in no wise interfere with the full enjoyment of fine, must be considered not only labour in vain, but a very indiscreet and thoughtless proceeding. Why, we ask, especially in a country like this, why take the head off an open carriage? if properly arranged it may be let down so as not to interfere with the comfort or intercept the view, and, when it is furnished with a wing, it prevents the hind wheels from throwing up the dirt, the which discomfiture the *Tessatempora*, in its summer state, has no provision against; and the importance of this seemingly trifling matter can scarcely be overrated. Imagine a fine day and a flower show, no easy thing to do, but, still looking at it as a remote possibility, who can tell what *stupendous* results might accrue from the spoiling of those marvellous fluttering combinations of millinery and muslin, and goodness knows what beside, which go to make a flower show toilette, and considering our way of watering the streets, this catastrophe is likely to befall, be the weather ever so fine, unless more provision is made against it than we could find in the summer form of the *Tessatempora*; and it should be remembered that a head, when down, forms a very handy and much used receptacle for small parcels, sticks, parasols, &c. Whereas the Summer carriage, so far as we could make out, has no place to receive anything that it may be desirable to have within reach, and yet troublesome either to carry in the hand, place on the seat, or under foot at the bottom of the carriage. But the principal reason for retaining the head on a summer carriage is the fact, that the showers the most sudden and the heaviest occur in the summer quarter. It would be all very well when all is fair above, and the sun not too hot to have the *Tessatempora*, as Mr. Windover would recommend, but if, at any time, and which is quite likely,

"Down comes a deluge of sonorous hail,
Or prone descending rain. Wide rent, the clouds
Pour a whole flood;"

we think we should wish for such shelter as could have been afforded us, if we had not left the head of our carriage hanging high and dry at home—the leaving which has cost us some trouble, and the absence of which can, under no circumstances, tend to our comfort or convenience. Further, if the springs are strong enough to carry the carriage when in its spring or winter form, with a full compliment of riders, we should imagine that in its summer form it will be rather rough riding; and we consider the carriage, if desirable in other respects, is incomplete unless some provision is made for regulating the spring power to the pressure the springs will, at different times, have to sustain. Our experience teaches us that the head and its appurtenances would make more difference in this respect than would at first sight appear, and we are certain that the inventors of this seasonable carriage can have formed no adequate appreciation of this disadvantage, or their fertile ingenuity, or, what is as likely, their talent for imitation, would have furnished them with some provision against it. But, it may be asked, wherefore all this? A head that will take off can be left on, if it is found that convenience requires it; there will be no harm done if this shifting arrangement is never taken advantage of. Granted; but we must offer our firm protest against an alteration which entails expense and offers no advantages, being placed

before the public as an event in the history of coach building, and as a boon of which only the purchasers of this carriage can hope to be the happy possessors.

The form of the spring carriage is that of the common landau, the front slat being taken off the hind head, the second slat doing duty as the door pillar, after the manner introduced some years ago in the Leopold barouches. A head with door top is let on to the front quarter, the door top of the open carriage is taken away, and the landau door top, with glass to slide down, takes its place. We need scarcely point out that, with all these fixings and fittings, unless the mechanism and workmanship is of the highest order, and the utmost care is taken by the coachman, or who ever may have to make the change, it is extremely probable that difficulties may occur which will render necessary the assistance of the nearest coach maker; meanwhile, the carriage possibly will have to remain in a half-opened, half-closed state, and suitable for use in no season whatever. We presume that the carriage in its "spring" form, is intended to open or close like the common landau; but we should imagine, from the roundness of the corners of the roof over the door, that the appearance, when open, must be rather unsightly; with respect to the appearance when closed, so far as the upper parts are concerned, we say nothing; and the usefulness and efficiency of this carriage, when fitted as a landau, we are not disposed to question, and it is undoubtedly well adapted for the spring period when changes of temperature are sudden and severe, and when summer days are often followed by winter nights, and when, as Mr. Punch had it some years ago, we might sally forth, skates in hand and furs on neck, in the morning, promenade in the lightest of summer suits in the afternoon, and return home in a drenching rain at night—for such weather the landau will always be a desirable carriage, and for such weather any carriage, which takes its form, will always be useful, be it called *Tessatempora* or any other dreadful name which may occur to the enterprising coach builder. The landau is suitable for all seasons, so that we are not disposed to question its being adapted for the spring, but it occurs to us that if a carriage be really adapted for the trying and changeable spring time, it is scarcely worth while to make any alterations, with the view of rendering it suitable for any other.

We repeat what we have often said, that the most efficient, the most useful, and, all things considered, the most desirable carriage capable of answering the purposes of two is the common Landau, and it is chiefly on account of its resemblance to the last-named carriage that the *Tessatempora* in its spring form is to be recommended. For the autumn, Mr. Windover would advise the carriage with the head and kneeboot flap, as used for open carriages from time immemorial; for ourselves, we do not see any difference in the seasons of spring and autumn to warrant such a great change in the vehicle, but perhaps, from the fact of his residing in rural districts, Mr. Windover has had a better opportunity of remarking the trifling gradations and all but imperceptible variations of weather and temperature, than some others, who pass the greater part of their time within the sound of Bow bells, or he may, for all we know, be that vigilant and learned individual who "does" the weather for the

newspapers; be this as it may it takes a deal of weather to find its way into Paternoster Row, and from our point of view we cannot perceive why the carriage prescribed for spring should not do equally well for autumn, and why that recommended for autumn should not answer equally well for spring. In speaking of the carriage in its autumn form, we may remark that there are two very awkward looking gaps disclosed when the head is down; this sort of thing would, we are aware, have not attracted notice some years ago; thanks to concealed joints, patent hinges, and things of that kind, people become very critical of this sort of thing, and very readily perceive and appreciate the difference between a carriage in the building of which all unsightly corners and angles have been suppressed, and one which has been built apparently without regard to these considerations; taking into account the great care which has undoubtedly been bestowed on this carriage, we are surprised that this matter should have escaped notice, or been left as it is. These gaps and corners, small as they are, and trifling though they seem, give to the carriage an incomplete look that no amount of care in the finishing itself can counteract. After all, the carriage in its autumn form is a roomy and serviceable vehicle, and would no doubt accommodate in comfort four grown persons, a thing we cannot say of all carriages built with that intention, or claiming that merit. We now come to winter. The winter carriage has a light in the front quarter, so that, while it is perfectly enclosed for four persons, a good look out may be enjoyed, and the occupants are not exiled from the blessings of daylight as they are in the spring or landau form of the carriage. This is no mean advantage, and it would be our pleasant duty to give Mr. Windover great praise if we were not aware of the existence of such things as the *diaropha* and the *amempton*. The *Tessatempora* in winter is essentially and in fact an "*amempton*," and we must conclude that either the inventors of the latter are more complaisant than many of their comanufacturers, or the inventor of the article under notice has borrowed of them rather largely, after the style that poor Thomas Hood's boy borrowed his "father's gun" without "his knowing it." There may be originality and novelty in this invention too deep and subtle for our obtuseness to discern, or our dullness to appreciate; but to our minds we can discover no practical intents or visible purposes which distinguish the winter *Tessatempora* from the *amempton*, which was exhibited as long ago as 1851, and has so far stood its ground as to come out in '62 with few if any modifications, and appears to be in as much request as ever.

With respect to the carriage altogether, though we consider it substantial and tolerably well built, we cannot speak of it in any flattering terms. The doors are not well fitted, in some parts there is more "*clear*" than is consistent with our ideas of first-class coach building; and, notwithstanding this may be said to be a good fault, in the same way as people say of ill-fitting garments "it is a good fault, it leaves plenty of room," we must say that we would rather have no fault at all than the best fault that ever was perpetrated; and the presence of this defect in this particular case is very important, as where there are detached pieces and fittings they must be adjusted to the greatest nicety and fitted with the utmost precision if they are

to be put up and taken down without the assistance of a practical coach maker, and if we see any want of exactness in the doors there is no reason to expect perfection in the more intricate parts; but as this is a matter which only the actual working of the carriage will decide, we leave it without expressing an opinion.

With respect to the general effect, this carriage has altogether a heavy appearance; we need not go far to find carriages much lighter in appearance, although equally commodious; in point of style it has nothing to recommend it, the shape is an assemblage of lines destitute of grace or harmony. The utter want of harmony in the lines gives one an impression that the body was made without any preconceived plan, or that the primary was to make something else, and that the present form is the result of second thoughts, but it is doubtful whether these *second thoughts* were best; the hind corner pillar line and bottom side, so far as the standing pillar joint, is well enough, but from that point, the bottom side line is, to our thinking, a contrariety and a mistake, and completely destroys the idea that the carriage was built to any well-digested design.

As to the hanging, we wish we could speak well of it; but the pitch and shape of the hind springs are defective in so great a degree, that to pass them unnoticed would be a failure of duty; the side spring is turned up, at the fore end, in such manner as to not only damage the appearance, but to be detrimental to its working. The hind wheel seemed to us too far back; in a word, the hind carriage, altogether, seemed anything but properly up to its work.

With respect to the fore carriage, we must admit a certain originality about it; the futchells, instead of, as usual, being framed through the axletree bed, are placed underneath, and a single stay is bolted on to the front of the bed, and is compassed up to take the front felloe-piece; the results of this alteration are, so far as we can perceive, that the splinter bar is placed lower down, and more in the way of the horses, and that the fore carriage suffers with respect to the essential element, steadiness, that the hind felloe-piece has to be raised up on one of the most absurd pieces of ironwork we ever saw, and that the futchells, wheel irons, and futchell stays must all be stronger, as they are quite independent of all assistance from the wheel plate, which, to our thinking, in ordinary carriages counteracts to some extent the sway and swing of the pole.

The painting we pass by; it is in severe though anything but bad taste. The fine lining is well done. The trimming and leather work needs no comment; the wing struck us as ridiculously small, both with respect to proportion and utility.

We could have wished that our account of this carriage could be more favourable; it is always more pleasing to us to praise than to speak disparagingly, but we are not forgetful of the fact that criticism, to be worth anything, must be impartial; and this renders it incumbent upon us to set aside any personal considerations, and trust that our sincerity will be apparent to our readers, and convince them, that we never wittingly withhold praise without justice, or give it without reason; that we on no occasion show either predilection or hostile animus, but ever and at all times strive to give a candid opinion on all subjects brought under our notice.

THE INTERNATIONAL EXHIBITION.

WE have pleasure in presenting our readers with the following detailed report of the Jury of Class VI. We have thought it best to insert it at length, as forming a contribution to our trade literature the value of which can scarcely be over-estimated, as a most elaborate and carefully digested statement by competent judges of the present condition of the English Coach-building trades.

PRELIMINARY REPORT OF THE JURY OF CLASS VI.

TO THE COUNCIL OF CHAIRMEN OF JURIES.

CARRIAGES NOT CONNECTED WITH RAIL OR TRAM ROADS.

In submitting a brief statement connected with "Carriages not connected with Rail or Tram Roads," the Jury report that they have examined with great care the objects exhibited in the class, British, colonial, and foreign: time does not permit at present to enter fully into the subject; it is however proposed at an early period to report more fully on the contributions that have been examined, and especially as to the changes that have taken place in such manufactures since the Exhibition of 1851.

The carriages shown in the British Gallery are on the average much lighter than formerly: in this department there is an entire absence of decorative, court, or even town carriages that would have increased the attractions of the display: from the experience of the 1851 Exhibition, where several such carriages caused loss to the exhibitors, they have now abstained from sending such contributions.

Most of the English carriages show excellent workmanship and materials; some of them are also of elegant design, of well-proportioned construction, and finished with good taste as regards choice of colours and decoration: there are, however, some marked exceptions, chiefly as to the choice of colours and decoration, which the Jury cannot but refer to, as showing that there is room for improvement on this point.

The foreign contributions also show progress: France is the chief contributor from continental Europe.

Russia is the largest contributor of carriages after France. Considering the difficulty of transporting bulky and delicate articles such as carriages, they have arrived in very fair condition; where damaged they will be restored by several English exhibitors, who have undertaken to do so for the Russian as well as for several other foreign coach-builders.

Prussia contributes a richly decorated state coach, made to the order of the present king.

Italy also sends a highly ornamented dress chariot.

From several other countries there are also contributions of carriages: the Jury append a tabulated statement of the number of British, colonial, and foreign exhibitors in this class, and the number of carriages now in the building—together with the awards of medals and commendation.

In deciding on the awards herewith detailed, the Jury have considered the carriages under the following heads, as entitling them to favourable notice:—

- 1st. As to their suitability for the purpose intended, giving comfortable accommodation for those who use the carriage.
- 2nd. As to good general design and proportion.
- 3rd. As to soundness and accuracy of workmanship, combined with good materials.
- 4th. As to improvement or novelty.
- 5th. As to the construction, that it be so carried out that no part shall be unnecessary; and that every part shall be best adapted for its intended use.
- 6th. As to harmonious combinations of colours.

Six carriages in the British department are withdrawn from competition in consequence of three of the Jurors being members of the firms which exhibit them. Namely—H. & A. Holmes, Derby. Hooper & Co., London. Peters & Sons, London.

CARRIAGES, SLEIGHS, ROAD VANS, AND WAGGONS.

Analysis of Exhibitors and Contributions.

Locality.	Exhibitors.	Carriages.
*London	61	42
*England, Provincial	47	35
Scotland	6	7
Ireland	1	2
Total British	115	86
British Colonial	4	5
†India	—	—
Belgium	4	6
Denmark	2	2
Hesse	1	1
France	12	11
†Austria	—	—
Prussia	3	4
Mecklenburg	1	1
†Hamburg	—	—
Italy	1	1
Netherlands	6	5
Norway	4	6
Sweden	1	1
Russia	11	9
United States	2	2
Total	167	140

The carriages may be thus classified:—

	British.	Foreign and Colonial.	Total.
Phaetons	11	13	24
Landaus	19	4	23
Broughams... ..	14	7	21
Sociables	8	5	13
Waggonettes	9	—	9
Sleighs	—	9	9
Barouches	3	4	7
Vans and Waggonettes	5	—	5
Coaches	3	1	4
Chariots	—	3	3
Four-in-hand coaches	3	—	3
Private Hansom cabs	3	—	3
Dog carts	3	—	3
Public omnibuses	1	1	2
Carioles	—	2	2
State coach... ..	—	1	1
Dress chariot	—	1	1
Droski	—	1	1
Irish car	1	—	1
Town car	—	1	1
Gig	1	—	1
Clarence	—	1	1
Basket carriage	1	—	1
Cart	1	—	1
Total	86	54	140

The number of exhibitors of the following are:—

Carriage drawings and designs ...	4	2	6
" springs	3	3	6
" axles	5	1	6
" heraldry... ..	3	—	3
" wheels	2	2	4
" models	3	—	3
" chasing	1	—	1
" ornamental painting	1	—	1
" shafts	1	—	1
Perambulators and invalid chairs ...	5	—	5
Velocipede... ..	1	—	1

* Of these six are vans, waggonettes, and a cart.

† Contributions not received.

Proportion of Exhibitors to Medals and Commendation.

	Exhibitors.	Medals.	Commended.
Great Britain	115	23	12
France	12	5	—
Belgium	4	1	—
Netherlands	6	1	—
Russia	11	2	2
Prussia	3	1	—
Hesse	1	1	—
United States	2	1	—
Colonial	4	—	—
Denmark, 2; Mecklenburg, 1; Italy, 1; Norway, 6; Sweden, 1	11	—	—
Total	167	35	14

British Exhibitors ...	115	Medals ...	23
Foreign and Colonial ...	52	" ...	12

May, 1862.

GENERAL REPORT ON CARRIAGES.

Before proceeding to report on the "Carriages not connected with Rail or Tram Roads," included in Class VI., a few preparatory remarks are desirable about facts that, although at present known to almost all, may in future years afford useful information.

When the number of names attached to the guarantee deed, and the amount for which each guarantor became thereby responsible, had reached such a sum as really to float the scheme of another International Exhibition, and the British Government became aware that the people really wished it to become a fact, a Royal Commission was appointed, manufacturers and others were invited to apply for space to show their goods, meetings of proposed exhibitors in each class were held at the house of the Society of Arts, where rooms were liberally placed at their disposal, and a trade committee for organizing the affairs of each class was elected. The applications for space were laid before the committee, together with a statement of the amount of space that would be at its disposal for distribution. One of the first steps taken by the committee was to issue a circular to all the principal manufacturers whose productions would be creditable to the display, and who had from various reasons not applied for space. It was urged that even if a prize might not be the object aimed at, a creditable display of an important national industry was desirable, as likely to benefit the entire trade, and elevate its position in the judgment of foreign as well as British purchasers. This appeal was successful in bringing forward several who would not otherwise have sent any contribution; it, however, left some leading manufacturers unrepresented, who preferred to take no part in the display.

Most unfortunately, just as the space had (after many meetings and much anxious consideration) been apportioned, it was discovered that, owing to some error of calculation, it was not possible to devote so much space by nearly one-third to the carriage department, and these allotments had consequently to be reconsidered, much to the disappointment of many applicants for space, who anticipated a grant for the display of several carriages. Most of the important provincial towns had a certain space placed at their disposal for allotment; only in cases where manufacturers in provincial towns had no committee to which to apply for space, the applications were dealt with by the London committee.

The plan adopted for procuring the services of jurors in whom the exhibitors might have reasonable confidence, was to a certain extent an election by ballot. Each exhibitor had a printed form furnished to him, in which to fill in the names of any three persons he would prefer as jurors: these papers were afterwards collected and forwarded to the Commissioner of Juries. It is believed that those persons who may be said to have polled the greatest number of votes are now the British jurors of each class; to them have been added, in Class VI., a French gentleman to represent French and foreign interests, and an English nobleman to represent the purchasers.

This is the fourth Exhibition in which British carriage builders have taken part. London, 1851; Dublin, 1853; Paris, 1855; London, 1862.

The first Exhibition, from various causes, did not legitimately display the state of British carriage building at the time; and many manufacturers, from the novelty of the whole affair, seemed to have mistaken its purport, and allowed themselves to run into extravagances of design and construction, of which they have since seen the ill effects: the impression made on the general public was not on the whole favourable, and the Exhibition itself did little (with a few exceptions) to increase the reputation out of doors of the great body of carriage exhibitors. Nor was the position assigned to the carriages by any means favourable, being in a remote part of the building, to which many of the visitors did not penetrate, and who were consequently unaware of the display. The mode of lighting from the glass roof was, besides, unfortunate for a favourable display, as the brilliancy of the varnish was most effectually subdued, thereby detracting from the appearance of beauty and finish of the carriages. The proximity to the locomotive engines and railway plant, standing on rails, in a gravel road, of course did not improve the show space, as from under the open-boarded enclosure the wind blew clouds of dust over the most delicate silks and varnished surfaces.

At the Dublin Exhibition the carriages were even worse placed, as they were lost to the great proportion of visitors.

In Paris the British carriages were banished to the remotest end of the machinery annex, and only the most enterprising of the visitors reached them, and then probably when fatigued; so that until the present time British carriage builders can hardly be said to have obtained a position suitable to show properly their productions.

In the present Exhibition the British carriage department extends almost the entire length of the British picture gallery, immediately under which, in the south-east corner of the building, it is situated. It is by far the best home that British carriages have as yet found for exhibition: the light, being admitted by large and high windows facing the south, if not all that could be desired, both as regards quantity and quality, displays to advantage the brilliancy and high polish of the varnish; although the crimson blinds that exclude the rays of the sun from the south give an attractive appearance to the whole gallery, the effect on the colours of some of the carriages is most prejudicial; it should be a warning in future Exhibitions that a certain tone of colour for the fittings of the whole building should not be insisted on with too much rigour. Had it been permitted to stipple the glass, at a trifling expense, the powerful rays of the sun might have been excluded at a small cost, and with more benefit to the exhibitors. Were the floor of the picture gallery a little more impervious to dust, and the wall decorations not quite so coarse, it would be a very near approach to perfection for the purpose intended.

Having thus glanced at the manner adopted for getting the best possible display—the position of carriages at former Exhibitions, and the commodious home afforded them in 1862—a glance at the preliminary report appended to the awards will show the number of exhibitors from each country, and the varieties of carriages that form the entire collection.

As might be naturally expected, the English contributions far outnumber the combined productions from all foreign countries, and those from London outnumber those from the provincial towns. London may indeed be said to be the chief seat of the carriage manufacture, both from the general excellence of the carriages built, as from the extent of the trade. Among the provincial towns, Edinburgh, Dublin, Derby, Bristol, Liverpool, Manchester, Nottingham, Southampton, Glasgow, and Newcastle-on-Tyne produce largely for the home and export trade. On the continent of Europe, Paris holds the highest place as regards the excellence and the extent of its carriage-building trade, which of late years has much increased, as well as improved in the style, workmanship, and durability of its productions. The French export of carriages has also greatly increased of late years. A large trade is also carried on at Brussels, Hamburg, Vienna, Aix-la-Chapelle, Offenbach, Milan, Rome, the Hague, St. Petersburg, and other cities and towns.

America, which only contributes two very light carriages, has rapidly risen to a great producing country for carriages: its productions are of a type quite original and peculiar to the country, and in some points have attained a singular excellence, as regards lightness combined with comparative durability: their execution shows good ability on the part of the

workmen. To Europeans these light carriages have a very singular appearance; they, however, probably meet the wants of the American public from their light draught. The bodies are small; the difficulty of getting into the carriage among or over the high wheels, is one requiring great activity to overcome, and the quantity of mud thrown by the very high wheels must be somewhat alarming.

There exists an Imperial manufactory for carriages at St. Petersburg, directed by an Englishman: it is well organized, and adapted for producing the private carriages used by the Russian Court. The various processes are there carried on, even to the weaving of the lace and the production of the ornamental metal chasings: it has probably had a good effect in improving the carriage manufacture in Russia, the contributions from which country are not only numerous, but show points of careful consideration in the construction and design. The Russian nobility are fond of having their equipages well turned out, and import many carriages from England, France, and Germany. The carriages in Russia, and those sent there, must necessarily be strongly built, as the thaw in spring, after the winter frosts, so breaks up the roads and paving, that a light or weak carriage must soon give way. Unlike these must be the carriages for the Australian markets, where, in consequence of the taste for light carriages built on the American system, much of the trade has fallen into the hands of the coach-builders of the United States.

The tastes and requirements for private carriages have evidently of late years taken a great change. The English department does not contain a single carriage fitted with a hammercloth; such carriages are still used by the high aristocracy of England during the London season. There were two excellent examples of town chariots with hammercloths sent to the Exhibition of 1851; and it is to be regretted that such carriages, which are capable of bringing out the best abilities of the constructors, are not to be seen in the department: perhaps for some future Exhibitions, gentlemen of taste, wealth, and rank may feel inclined to give orders for such carriages, that they may be temporarily placed in a collection that is certainly not complete without them.

Nor is there a travelling carriage. We may now perhaps feel assured that the railway has the entire monopoly of transporting travellers on long journeys throughout western Europe; there are still links missing in Spain, Italy, Sweden, Russia, and a few other states of Europe; but as regards the manufacture of private travelling carriages in England, it is now evidently a thing of the past, probably soon to pass out of mind, or only to be remembered by the older masters and craftsmen.

An important omission may here be mentioned as regards public carriages for the streets of cities and towns. Was London at last really ashamed of its dirty and rickety cabs? As regards its street cabs, London is worse supplied than many European cities (with the exception of a few clean and well turned-out Hansoms), and far worse than most of the English provincial towns. There is no necessity to vary the size and build of such vehicles, as they exist here in only two types: the "hansom," as an open one, the "four-wheeler," as the close one. They might be produced in great numbers by machinery; all the parts might be duplicates one of another, the wheels, axles, springs, bodies, seats, &c., might all be made of one size and gauge, to interchange; the rapidity of manufacture, facility of repair, and general economy of production would appear to be advantageous to all parties, and those of the public who cannot afford to keep carriages of their own, might be carried in vehicles that should be at least clean, safe, and comfortable; and with a little more care in warehousing they might be brought into use without that very pungent smell of the stable, that is probably disagreeable to every one except the owner and the genuine London cabman. For many years the public omnibuses in Paris have been made on this plan; the various parts are made alike, and to interchange; the facility and rapidity of repair in such cases is more advantageous than may at first sight appear, as every day the vehicle remains idle under repair is a loss to its owner, whose profit depends on its being at work and earning money.

The choice of carriages for display was entirely left to the discretion of each exhibitor, so that it was quite a matter of chance what carriages were represented, and what entirely unrepresented; it would even have been possible that all the carriages on their arrival might have turned out to be broughams when the packing was removed. It may be worth while to

consider, in future Exhibitions, whether some plan could not be adopted of showing all or most of the carriages in use at the time; and whether it is necessary to the best possible display that exhibitors should have nearly an equal amount of space allotted to them, whether their productions are first class, second class, or only one remove from third class. The object of these periodical displays is probably to interest and attract British and foreign sight-seers and purchasers, and if possible to leave an impression of their general excellence. It is likely that many of the objects shown will hardly receive a glance from visitors, while others will excite their admiration and desire to become the possessors; the question to be considered would be, whether more benefit would not accrue to the whole trade by a display verging on perfection, rather than by a very mixed display, of the merit of which doubts should exist in the minds of visitors; besides the greater attractiveness of high quality in design and execution, over mere quantity and variety.

The reverse of this plan seems to have been adopted with some success in several departments of manufacture: such as "engineering," "pottery," "jewelry," &c., &c., where the most distinguished manufactures have such space and positions allotted to them as induce them to make great efforts, and incur great expense to produce a display that attracts much attention, and indirectly benefits the whole trade by the amount of notice drawn to the productions of their class, besides the advantage that is afforded to workmen and manufacturers, by having the best productions of the time freely submitted to their inspection and criticism, and enabling them to make many real improvements.

There seems an increasing desire on the part of British and foreign carriage builders to show their carriages in a partially finished state. This seems to indicate a straightforward desire of convincing the public that the wood, iron, and workmanship concealed by the painting and lining are as good as they should be to insure durability: although not possessing so attractive an appearance to the general public, many purchasers will not be at all displeased to find they are served with wood and iron of first-rate quality.

Woods are shown in such great quantities and of such excellent quality by many of the English colonies, that it will be strange if the colonists do not open a trade with the coach-builders of Europe. The difficulty of bringing the producers and consumers together seems to be the great hindrance to opening a trade: if they could be brought into contact, either personally or by letter, a direct trade might soon be opened, probably on a small scale at first. From the excellent quality of some of these woods as regard strength, toughness, elasticity, size, &c., they would probably advantageously increase the supply of woods that are serviceable for carriage building. The list of useful colonial woods for the coach-builder, inserted in the report on the carriages of the Paris Exhibition, seems up to the present time to have remained a dead letter. This is probably owing to the comparatively limited circulation of these Official Reports; were they published separately in the same form, or perhaps with the parts of the Illustrated Catalogue, and sold at a cheap rate, they would have an increased circulation, and fall into the hands of practical men at home and in the colonies, who would carry into practice what can only be referred to slightly in a general Report.

The only new woods recently adopted by the English coach-builders are the Canadian black walnut, and American hickory. The former grows to a great size, and is advantageously cut into panels, which are free from figured grain, and for many purposes are an excellent substitute for Honduras mahogany. It must, however, be recollected that it requires time and great care to introduce new woods into a manufacture like that of carriages: they must first be thoroughly seasoned; it must then be ascertained by experiment if they require any peculiarity of treatment, or care in working; then if they are adapted to the variations of our climate, and what effect a hot sun in summer, or a continuance of wet in winter, has upon them. The black walnut has been adopted by many of the principal upholsterers and pianoforte manufacturers for their internal fittings. The hickory is a most valuable wood for the spokes of light wheels.

Of all people, the Americans seem to have been most successful in applying machinery for working wood. One of their most successful applications is the making of wheels by machinery. Not only have they an

excellent supply of light and tough woods, but the skill they have acquired, especially in making light wheels for carriages, has produced for them a great reputation. A trade has now sprung up in the importation of these light wheels to England for broughams and other light carriages.

A self-acting double-fold step of very ingenious construction is sent from the Duchy of Hesse.

On a brougham sent from Russia is an ingenious double-action spring door-lock, so that the inside and outside door-handles act independently, thus reducing the friction and wearing of the spindles. The same manufacturer shows an excellent "droski," the national carriage of Russia. As such vehicles are the most numerous and the most popular in Russia, this one deserves notice, especially as its construction is so totally different to any English carriage. The mode of attaching the shafts to the horse and of harnessing him, merit inspection, as it is said that horses harnessed on the Russian plan rarely fall—in fact, are much supported by the way they are put to their work. The lightness and strength of the Russian harnesses particularly merit attention, the leather part being so light, as to appear unsafe to English eyes. This, however, is due to their peculiarly prepared harness leather, which is marvellously strong. As the Russians are almost as great in their way at driving as the English in theirs, their harness and methods of attaching horses to their work are worth attention.

Many and very considerable changes have taken place in the manufacture of carriages since 1851, mainly in consequence of a smaller breed of horses being used, so that a demand has arisen for smaller and lighter carriages. In point of weight there is a remarkable difference in the carriages of this Exhibition and that of 1851: it is probable that there is an average diminution of about one-fourth in the weight of all the carriages shown in the British department. Added to this, manufacturers have endeavoured to combine greater elegance of general design with reduction of weight: under this head several manufacturers have combined the attributes of comfort, lightness, and elegance with great success.

In the combination of colours, the British department has also shown progress, many of the carriages being both painted and lined in excellent taste; the selection of colours showing attention to a point on which much of the appearance of a good equipage depends. As the best design, workmanship, and material may be entirely neutralized in appearance by a bad selection of colours, this is a point that can hardly be too strongly insisted on: there are, however, a few rather glaring departures from the general care shown on this point. Not less so is the still prevalent practice with some coach-builders, of overloading with superfluous ornaments carriages which from their construction are evidently intended for ordinary everyday use.

Another improvement very recent among the British coach-builders is the use of tough steel instead of iron for carriages that are required to be built very light. This material might perhaps be more accurately described as a very dense, hard, and tough iron, that is, capable of welding, but requires somewhat more care than ordinary best carriage iron to work, than which it is about three eighths stronger, giving a considerable diminution in weight when used through a carriage. It is also applicable for coach-screws, nails, bolts, and clips. They have this advantage, that, being of equal strength, with less bulk, the holes necessary to be made in plates or stays need not be so large; as, although holes are absolutely necessary to attach them, the smaller they can be made, the less they weaken the object they are made in.

The manufacture of fancy wood panels, imitating interlaced basket-work, is now established in England. This very ingenious invention is due to France, where it was first made by a retired soldier of the Empire, named Fert, who not only made large quantities for the French coach-builders, but for some time exported a considerable quantity to this country. By improved machinery it is now made in England more accurately, and in a greater variety of patterns than in France. It is much used to give a light appearance to small carriages, principally for country use. It forms a neat and durable substitute for the real wicker-work formerly used, which rapidly becomes deteriorated by mud and moisture.

Among other changes is the increased use of the lever-break for carriages principally used in hilly parts of the country. Since their first introduction they have been much improved in simplicity, efficiency, and economy:

many of the British carriages are fitted in this manner. It not only increases the safety of a carriage, but dispenses with the necessity of taking a second servant, as is necessary, to put on and remove the common drag-shoe. A supply of spare hard-wood skids is generally furnished, so that new ones can be readily fixed by the servant if once shown how to set about removing the worn skids, and replacing them by new ones.

A mode of applying pressure to both the back and front parts of the hind wheel of a carriage has recently been introduced, and possesses advantages for carriages to which a pressure in front only cannot advantageously be applied.

In consequence of many improvements effected in the manufacture of landaus, the chief of which is the great reduction in weight, the demand for them has recently much increased. They are well suited to the variable climate of the British isles, as they can be readily changed from an open to a close carriage, and *vice versa*. They do not, however, admit of that beauty of outline that is capable of being given to an entirely open or entirely close carriage; but from the amount of care and contrivance displayed—as evinced in many of those shown, they have such qualities as render them very convenient and desirable family carriages, either for London or country use. There are shown several ingenious plans for enabling the heads of landaus to fall flatter than has been hitherto considered practicable; they have the advantage of converting the landau into a more open carriage than formerly, besides preventing an obstruction to the view. Most of these carriages are hung at such a very moderate distance from the ground, and with covered steps, that it is optional whether one or two servants shall accompany them.

Carriages of the waggonette type, where the sitters in the back seats are placed sideways and *vis-à-vis*, are come much into use of late years; they possess the advantage of carrying a greater number of persons on a carriage of given weight than any other on four wheels.

The first, or nearly the first of these, was built in the year 1845, under the personal direction of the late Prince Consort, for the use of Her Majesty and the Royal Family. It had many ingenious contrivances suggested by the Prince, with whom and Her Majesty it always remained a favourite carriage for country excursions. There are so many varieties of carriages of this type, and so much ingenuity has been bestowed on them, that it can hardly excite surprise that they are much appreciated by those who use carriages, especially in hilly parts of the country, where a compact, serviceable, and economical carriage is in many cases indispensable.

A revival of an almost obsolete carriage, "the four-in-hand coach," has taken place within a few years. They are generally built on the model of the best mail and stage coaches of former times, but with a much higher degree of finish. It may appear very easy to the uninitiated to build such a carriage, merely on the lines of former days, but in fact they require such careful and accurate planning of the several parts, individually and combined, that only those who have given much attention to them, and have to a certain extent been tutored by gentlemen who drive them, have been successful in turning out carriages of the kind that in most points meet their requirements. One of these carriages is the trophy of the British coach-builders, and is now in a conspicuous position in the Nave of the Exhibition building. The revival of a taste for such carriages is worthy of remark, as the management of a "team" not only requires great bodily strength, good nerve, and a quick eye, but, being an expensive amusement, is mostly confined to the aristocracy and persons of wealth, with whose habits it is principally associated, and indicates something of that vigour of body which generally distinguishes the British gentry.

As a matter of convenience, comfort, and safety, it is desirable that rather more attention should be devoted to the position and pitch of the footboards of driving seats. To many carriages this remark does not apply, but to a great number it does. In planning and executing a driving seat, were a master or workman to get on it and make it comfortable for himself, it would probably remain so for the next occupant, who, if in charge of young or restive horses in a crowded street, would be much assisted by having a firm seat, combined with a good hold on his footboard.

As regards carriage drawings and designs, one London firm shows a series of most of the carriages now generally made by the principal London manufacturers. There are also several other drawings of carriages well designed: in fact, the London artists supply not only the London and many of the provincial builders with carriage drawings, but large numbers are sent to the principal continental coach-builders, who get their fashions from London.

There are shown some specimens of the present state of the art of heraldic painting in England, as well as some specimens of the style now fashionable for monograms in combination with crests, &c. This is a subordinate branch of art that is capable of development; as a good group of letters, &c., well designed, quaint, but not obtrusive, has a tendency to give a pleasing finish to a well-appointed carriage.

As regards the manufacture of silks for carriage linings, although not a very extensive branch of the English silk trade, it is of some importance; and great improvements have been made as regards the dyeing, the brilliancy of the surface, and, above all, in the patterns. It seemed hardly to be considered that a large bold figure, well adapted for drawing-room curtains, was most ill placed in the interior of a carriage, to which it gave a flashy and uncomfortable appearance, from the partial concealment of the pattern by the tufting of the cushions, squabs, &c. Smaller and more suitable patterns are now made, much to the improvement in appearance of the majority of English carriage linings.

Owing to the greatly enhanced price of leather, from various causes, of late years, a great impetus has been given to ingenious persons for the production of useful and economical substitutes, which are now produced in the form of waterproof goods of such excellent quality that they replace much of the leather formerly used.

Although heraldic and metal chased ornaments are not so much used now as formerly, progress has been made in the beauty of design of such, where required.

A minor improvement in the substitution of a wooden frame with stuffed top, covered with cloth, for driving seats, may be mentioned: it retains its shape better than ordinary hair cushions, and does not absorb so much moisture when exposed for a long time to heavy rain; it can also be more readily dried when wetted.

Special periodical journals devoted to individual manufactures are a sign of the stirring times in which we live, and when conducted with talent and energy are capable of assisting in carrying on rapid improvement and bringing forward useful inventions to the notice of those who are particularly interested in their successful application. They are also a means for interchange of ideas on an infinity of theoretical and practical matters; and have the means, when ably conducted, of diffusing truth and suppressing error by the force of argument, and saving much time and money in fruitless experiments.

Although France led the way as regards periodical literature connected with carriages, and America was the next in the field, England for nearly three years has supported its "*COACH-BUILDERS' ART JOURNAL*." During its early existence it had to encounter many difficulties and prejudices; but from the experience gained, most of the difficulties being now overcome, and much of the prejudice having subsided, the publisher has obtained a large circulation for it in this country and over most of those parts of the world where carriages are built. With an efficient staff to edit and furnish designs, it may raise the art of coach-building to a higher position than it at present holds. There have been recently tried a variety of processes for carriage illustration besides the usual hand-made designs furnished by the artist, which, up to a very recent time, were the only ones suitable for coach-builders. They consist of steel and copper-plate engravings, lithographs, zincographs, wood engravings, photographs from finished carriages, and photographs from carriage drawings, either exact to copy, enlarged, or in miniature, for transmission in ordinary letters by post.

A great advantage to coach-builders is the covered carriage trucks kept by some of the railway companies for the transport of private carriages to distant places: with such contrivance, a coach-builder is enabled to deliver a new carriage to the most remote parts of England or Scotland almost as perfect as it leaves his hands; the expense of packing

is saved, and the marks left by the packing are avoided. It is hoped that before long such covered trucks will be kept in sufficient numbers by all the railway companies, as the present open trucks are most destructive to all private carriages, from the quantity of ashes and filth deposited on them by the engine, which seriously injure the varnish and soil the linings.

An unlooked-for consequence of such Exhibitions as the present was perhaps hardly contemplated by their royal founder: it happened that the British coach-builders who contributed to the Paris Exhibition of 1855 were brought together frequently in furtherance of their mutual interests, and almost at the moment of their dispersion it was proposed that some useful object should be set on foot. A charitable institution found most support, and the subject was immediately placed before a public meeting of the trade, where it met with equal favour. It has since collected upwards of £6,000 for charitable purposes; has an annual income of between £500 and £600; assists and maintains twenty pensioners with sums ranging from £10 to £25 per year, besides distributing monthly sums varying from £2 to £10 for temporary relief to persons connected with coach-building, who have been overtaken by misfortunes.

A somewhat similar institution has recently been set on foot by the workmen engaged in carriage-building; the rules have been drawn up in accordance with the new law, and have been approved by the Registrar General of Friendly Societies. As it has been founded by some of the most skilful and best conducted of the operatives, and has been supported by many of the principal employers, it is hoped that it will meet with all the success that such provident societies so well deserve, when confined to the legitimate purpose of encouraging provident habits and relieving distress.

The habits of the operatives engaged in coach-building are much improved; not only is intemperance almost abolished, but most of the men read and write, and many possess good general information on many useful subjects: the free admission to so many public galleries, institutions, and gardens, together with the facilities of excursion trains and steamboats, enable them to spend their holidays in an agreeable, entertaining, and economical manner. As the success of coach-building depends much on a knowledge of sound mechanical principles, of the arts of design, and the harmonious combination of colours, it is desirable that the attention of the working men should be especially directed to the facilities afforded for acquiring such information; as those who acquire a proficiency in these, as well as in their own special department, would obtain increased remuneration from the advantage that would surely accompany a knowledge of the correct principles on which they work.

The body-makers, carriage-makers, smiths, and others should as certainly be acquainted with mechanical principles, and the art of drawing, as the painter and trimmer should know how to combine colours to give them their best effect.

The carriage department might have been more complete had it received contributions from the principal London wheelwrights, axle-makers, spring-makers, lamp-makers, and heraldic chasers: there is ample wall space to have shown a large and interesting collection of such manufactures, which are produced in London of the highest quality; it might have led to an export trade for such goods, of which large supplies are now annually drawn by some foreign countries from France and Germany.

The principle of suspending carriages on a single wrought-iron perch, first prominently introduced at the Exhibition of 1851, has produced a great change in the construction of nearly all C-spring carriages now built, and has many advantages for small carriages hung low. It is, however, beyond a doubt that for carriages hung high, and requiring double folding steps, the perch of wood and iron combined has the great recommendation of increased safety, as three iron plates and the wood must break before an accident can happen; whereas the solid iron perch depends for its safety on the soundness of a single weld.

In the French department in the main building are shown two photographs of a state railway carriage recently built for the Pope; its design and decoration are so far in advance of anything yet done in England, that these photographs well deserve to be examined and placed in a more prominent position.

The omnibus (usually drawn in Paris with two powerful but slow horses) shown by France, for the traffic of the Paris streets, deserves careful examination. These carriages are all made on one model, by machinery; and the parts interchange, so that repairs are very expeditiously executed. Although much too heavy for the London traffic with a pair of light horses, and too cumbersome for the crowded traffic of the streets in the city of London, they are comfortable, easy, and safe. The plan of suspending on three springs, both in front and behind, gives greater ease than the short elliptic springs common to the London vehicles. Were such carriages copied, but made shorter and lighter, and were the front box seats (to carry four) added, such carriages would be a great addition to the comfort of many thousands of Londoners, who have to make two journeys daily, for six days in every week through the year, in the stuffy and ill-ventilated London omnibuses, which, by the recent innovation of roof seats, are so constantly overloaded as to strain and wear out the horses very rapidly, besides cruelly taxing them much beyond their strength.

Since the opening of the Exhibition, there have appeared in London a number of large, commodious, and well-ventilated omnibuses, even somewhat larger than the Paris omnibuses, drawn by three horses abreast. In the first place, the increased comfort to the public is undoubted; the horses seem to work with less strain on their muscles; the omnibuses, having a larger base, are steadier and safer, and having longer springs they are easier, and being fitted with pressure or lever breaks to the hind wheels, they can be stopped with greater facility. The expense of building the carriages larger somewhat increases the expense, as does also the addition of a third horse; however, to set against these charges, are the increased number of passengers carried (about one-third), with the same number of attendants (driver and conductor), nearly equal expense of repair, and the saving in the wear and duration of the horses, so that the question of working them profitably in London may be considered almost certain.

They might not be available for narrow streets, but many lines of omnibuses scarcely approach the narrow and crowded City streets; the crowd of traffic may at present be a drawback, but the state of the traffic will probably soon be altered. The London railway stations are being so placed as to be easily accessible, and much of the heavy traffic through London will be taken by the connecting lines of railway exchanging the northern and southern, eastern and western traffic, partly by passing through the metropolis, and partly under it. Besides this, the roadway of the Thames Embankment will relieve the City traffic of its delays and dangers, and render it safe for others besides the strong and robust to drive or walk in the highway between Temple Bar and the Bank.

In the "Victoria" department is shown a well-balanced car, such as are generally used for passenger traffic in the streets of its towns: although rather heavy and cumbersome to London eyes, accustomed to neatness and high finish, it is probably well adapted for its purpose, especially as regards the ingenious canopy roof, which can readily be set up or lowered, as the passengers may prefer.

In the English gallery of architectural drawings is shown a well-executed model of Her Majesty's state coach. As the carriage itself (designed by Sir William Chambers) is believed to be the handsomest and most artistic of its kind in Europe, it is worth considering whether the model might not be procured for the national collection, as at least a slight recognition of the art of coach-building, which in these days is almost elbowed out of notice by the taste for many pretty arts and manufactures that hardly require more, and many not so much care and thought as the successful production of the highest class of private and court carriages.

The contributions of woods grown in the English colonies, and the arrangement of many of them for exhibition, deserve the highest praise, but it is unfortunate that most of the specimens are sent over unseasoned: the following list includes many useful varieties, but time and experiment alone can decide which are best adapted for particular uses:—

TASMANIA.—Blue gum—for wheel felloes, shafts. Black wood—spokes, naves. Myrtle—panels. Stringy bark—felloes. Mr. W. L. Crowther, timber merchant, Hobart Town, would execute orders.

CEYLON.—Iron wood. Many of the woods of Ceylon are of good quality;

they are, however, cut up into such small pieces that it is almost impossible to judge of their value for manufacturing purposes.

CANADA.—Black walnut—for panels. Shell bark hickory—spokes, poles, shafts, and tool handles. White pine—bottoms, roofs, &c. Plane tree—footboards, common panels, rockers, &c. White oak—spokes, naves, boot bottoms. White wood—common panels. White ash—felloes, and bending purposes. Smooth bark hickory—spokes, poles, &c. Rock elm—naves. Sugar or hard maple. Black oak—not quite so good as white oak. Black birch—footboards, rockers, &c. Butter-nut—common panels. Pepperidge—naves. Wild black cherry—panels, &c. Red pine—bottoms, roofs, &c. Red oak—spokes, boot bottoms, &c. Cass-wood—light boot sides, panels, &c. Mr. D. R. Van Allen, timber merchant, Chatham, Upper Canada, would execute orders.

TRINIDAD.—Fustic—naves, &c.

JAMAICA.—South American acacia—for under works, &c. White lance-wood—shafts, &c. Fustic—naves.

BRITISH GUIANA.—Locust—for panels. Tonquin bean—panels. Hackia—panels. Hyabell—panels. Houbaballa. Tataboo. Warrenara. Mora. Tomenaro. Bullet-tree. Purple heart. Green heart. Wallaba. Mr. Ridgway, 40, Leicester Square, London, would execute orders.

VICTORIA (AUSTRALIA).—Red gum—naves. Ironbark—spokes. Black wood—felloes. Stringy bark—felloes.

QUEENSLAND (AUSTRALIA).—Beech. Blue gum. Cypress pine. Stringy bark. Ironwood. Red ironbark. Black ironbark. Forest oak. Blue gum. Silky oak. Jambosa, much like lancewood.

NEW SOUTH WALES. Cherry. Buranna. Forest oak. Flooded gum. Red box. Moreton Bay chestnut. Yellow box of Camden. Hickory. Spotted gum. Water gum. Sallow. Black wattle. Blue gum. White myrtle, much like lancewood. Teak wood. Red ironbark. Swamp mahogany.

AUCKLAND (NEW ZEALAND).—Kauri—panels, footboards, &c. Tanekaha—common panels.—Ribbon wood. Mairi. Kohekohe.—White tea-tree. Marpow. Tortara—panels, &c. Rimu—panels, &c.

NATAL.—Red ivory wood. Stink wood. White pear wood. Red pear wood. Thick bos. Assegai. Red speke wood. Umcalota.

WESTERN AUSTRALIA.—Jarrah—a very hard wood, much like mahogany in appearance. Tooart—a wood of excessive weight and strength, fit for hard working waggon wheels.

NEW BRUNSWICK.—Birch. White pine. White ash. Black ash. Oak. Beech.

MYSORE (INDIA).—Billawar—much like lancewood. Trallany—much like mahogany. Tampensis—much like mahogany.

PENANG (INDIA).—Klat—much like mahogany.

As some guide to persons interested in introducing colonial woods for coach-building purposes, a few remarks on the particular qualities required for certain parts may save many mistakes and much inconvenience.

For panels, the wood should grow to a large size (say 18 to 36 inches diameter), be sound throughout, without figured grain, moderately hard, and capable of seasoning in thin boards without twisting and splitting.

For bodies and underwork, a tough, hard, fibrous wood, capable of resisting wet, and somewhat elastic, with a long grain (from 12 to 30 inches in diameter).

For spokes of wheels, a hard, sound, tough, and elastic wood, of straight grain (from 8 to 12 inches in diameter).

For felloes, a hard, sound, and tough wood, capable of resisting wet (from 8 to 16 inches in diameter).

For naves of wheels, a very sound, fibrous, and tough wood (diameter 8 to 12 inches).

For bottoms and roofs, a light, sound, compact wood (diameter 16 inches to 36 inches).

For footboards, rockers, &c., boot sides, a sound, hard, smooth-grained wood (diameter 16 inches to 36 inches).

The woods should possess these qualities without being excessively heavy.

Although the application of machinery to the construction of private carriages has progressed, aided by a well-known firm in Derby, which has for some years devoted attention to the subject, many reasons prevent its

general application to private coach-building purposes. Some of which are, the great variety of carriages built by each manufacturer, the desire on the part of purchasers to have carriages made to dimensions of their own choice, and the variations of pattern, as fashion indicates the lines that are most favoured by those who lead in such matters. These continued changes, in some cases tending to improvement, complicate the details of construction, already sufficiently intricate; whereas it may be cited as a general rule, that the most profitable and advantageous application of machinery is in the production of articles in great quantities as nearly as possible identical, such as the Enfield rifles, Armstrong guns, railway bars, axles and wheels, &c., &c.

The following machines are those that have been found best to answer the purposes required:—

Fans for blowing forges, and circular and upright saws—the latter arranged to saw out two felloes at one operation.

Wood-boring and morticing machines.

Machines for boxing wheels.

Wood-planing and shaping machines. The latter fitted with tools for rebating, grooving, moulding, and tenoning.

Spoke-turning machines.

Iron-bending machines.

Shearing, punching, and drilling and screwing machines.

Paint mills.

Grindstones for springs and ironwork.

It may be added, that in eleven years the tool-makers have not been idle; improvements to facilitate hand labour have been made, not only by comparing side by side the productions of English makers, but with those of continental and American makers: an intelligent workman who is paid according to the amount of work he turns out, looks for such aids to his labour with a keenness sharpened considerably by self-interest, and adapts himself to the work he is required to produce with great ingenuity.

There are certain requisites for coach-building that would improve carriages in several points. For colours, durable blues, lakes, and yellows are required; as is also a colourless and durable varnish. Of what avail is it that scientific men invent such beautiful colours as mauve, magenta, and others, if they are at once to be toned down by several coats of brown varnish? Coach varnish has been much improved of late years; but until delicate and beautiful colours can be used without being tinted with a film of brown to preserve them, varnish-making cannot be said to have reached perfection.

Were due attention given to the matter, it is probable that manufacturers might be able to produce cloth suitable for carriages that would resist the attacks of moths, which cause much injury to carriage linings, besides loss and vexation to the owners. The green and claret cloths made up to this time become rapidly faded when exposed to the sun in open carriages: this deserves investigation, as it is probable that an improved dye may be used with advantage.

It is believed that the exportation of British carriages has not kept pace with the increase of most other exports: this is probably caused by purchasers directing more attention to lowness of price than the real economy of soundness of quality. A large proportion of the recent exports of carriages have been of so low a quality as to drive away many purchasers to the manufacturers of the continent of Europe and the United States of America. This is a state of affairs that will require time and much effort to bring into a more desirable condition: the matter requires the hearty concurrence of purchasers, merchants, and coach-builders, as it frequently happens that carriages of the lowest price and quality afford the largest percentage of profit.

In conclusion, it may be remarked, that the British show of carriages (with some exceptions) sustains the reputation of the manufacture as to design, comfort, soundness, and good finish, as regards the type of carriages in most general demand at the present time. France follows next, with a small display of soundly-built carriages; then follow Belgium, Germany, Russia, and Holland, each with a proportion of sound and genuine workmanship. The English carriage department has been fitted up at a small individual expense to each exhibitor, and shows the carriages in it to advantage: this is not generally the case with the space allotted to the

foreign carriages in their respective departments. It should be considered in future Exhibitions, whether some exception could not be made to carriages, and show those of all countries together in one well-arranged department. At present, the Commissioners of foreign States do not seem to know what to do with their carriages, which are displayed in all manner of ways, rarely well, and frequently much to their disadvantage.

Were time permitted, it would be possible to notice many other points of interest, although almost impossible to discover everything worthy of remark in so extensive a collection. Visitors should therefore not only examine superficially the objects most prominently displayed, but seek out many interesting objects that are placed in the recesses of the various courts.

In the award of Medals, it is worthy of remark, that with few exceptions, those exhibitors have been most successful who have contributed carriages that they are in the habit of producing as ordinary matters of trade: the reason is, that they have had time and opportunities to correct mistakes and to add improvements at their leisure. Where exhibitors have produced something they are unaccustomed to, errors have been committed that experience and comparison will probably rectify, but which have been fatal to their claims for a Medal in the present Exhibition.

As some recommendation to the plan of a careful preliminary selection of exhibitors, it may be remarked that the success of France in this respect is instructive. The contributions to the class are small, but they are carefully selected: although one Medal is given for wheels, and another for a public omnibus, three remain for private carriages; so that it may be seen that a small and carefully-selected display takes its proportion of Medals with more success than a promiscuous display of the goods of nearly all applicants for space.

It may further be added, that in several cases coach-builders have attempted to adapt their carriages to many purposes: as a general rule it is better that a carriage should be useful for one or two purposes, than that it should be convertible into several, more or less perfect, according to the ability of the builder and his workmen.

Road vans and waggons were included in Class 6; and it is evident that railways have created a demand for a class of vans to distribute merchandise and heavy goods in cities and towns: their construction is required to combine strength, compactness, and reasonable lightness, for facility of rapid movement with two or occasionally three horses. An excellent example of this class of van is shown in the carriage department; not only is its general construction well suited to its requirements, but the details have been so well contrived, that each gives its utmost strength without superfluous weight; there is also shown a well-contrived pair-horse spring waggon for the transport of heavier goods, such as coals, corn, flour, &c. Great Britain only shows invalid and garden wheelchairs; the display is very limited, but good in quality: the invalid, in whatever stage of suffering, may be supplied in England with little vehicles that afford the utmost comfort that ingenious contrivers can produce in a great variety of form and modes of suspension, suitable for the different wants and means of invalids.

And lastly comes into notice the little vehicle so well known to all, "the perambulator:" it is a somewhat recent innovation, probably even since the Exhibition of 1851. From the immense number that have been made, and continue to be made, they have evidently filled a gap that had long waited to be suitably filled. Not only were the children's carriages of former times (made on four wheels, and to be drawn instead of pushed) hateful to most servants that had to draw them, but they were the cause of occasional ill-feeling between children's nurses and their employers. "The perambulator" fortunately was invented, and restored harmony: they not only are light and convenient little carriages, and, if well made, durable, but (with ordinary precautions) almost indispensable to the parents, nurses, and children of the rising generation.

GEORGE N. HOOPER, REPORTER.

NOTICE.—The whole of the Jurors' Reports may now be had, in a complete form, of Messrs. BELL & DALDY, Fleet Street.

OUR ILLUSTRATIONS.

SMALL Single Town Brougham. Messrs. Wyburn & Co., Long Acre, London. Among the best of the somewhat indifferent show of Broughams at the Exhibition must be placed that of which we this month furnish a drawing.

It is a well-built carriage enough, and is so arranged as to give more interior accommodation than its outward appearance would lead us to expect; and while it is small enough to secure the admiration of the most enthusiastic *amateur* of miniatures, it has not that *cramped-up* look which so generally destroys the gracefulness of carriages, so called, and suggests the idea that the occupants of them are "cribbed, cabined, and confined" in such manner as to endanger the smoothness and propriety of tempers and toilettes; and instances are not rare where this *miniature business* has been carried to such an extent, or rather, we may say, to such a *non-extent*, that carriages have been built about as well adapted to contain in comfort a full-grown man as a Chinese lady's shoe the human foot in its normal state; and the unprejudiced bystander who sees affectionate young people assisting their venerable and full-bodied relatives into their carriage, cannot but think that the most dutiful thing the said young people can do is to wish their elders safe out of it; or if he, the bystander, happen to be of an erratic or imaginative temperament, he will be possessed by the insane idea that under certain conditions the human anatomy will admit of a man's going out to dinner piecemeal, or at least of his alighting from his carriage in a disjointed condition.

In the carriage before us extremes have been avoided; there is doubtless tolerably comfortable room for two persons; ingress and egress may both be effected without difficulty, if not with ease; and in saying this we consider we are giving the best praise to a carriage so reduced in its external proportions, so light in its general appearance.

As to the general contour. The style is pure "Wyburn," and differs considerably from the present fashion of other makers. The bottom side and corner pillar lines are in one, the angle at the standing pillar, so much in vogue, having been systematically avoided in the Broughams by these makers. By this arrangement an opportunity is given for introducing the celebrated "line of beauty and grace," or serpentine sweep, as the main feature of the carriage; in the case before us full advantage (to our minds) has not been taken of the opportunity so presented; the line is imperfect and irregular, especially that of the bottom-side, near the corner pillar-joint,—the fore end of the bottom-side also appears to us somewhat too flat and tame, and does not harmonize with the fore pillar, which might with good results have been fainter. We indicate these, as we think, defects in form with some deference; as it is quite possible that their removal might be detrimental to that light appearance upon which the principal claim of this carriage to special notice rests. The front boot and its dependencies are not the happiest portions of the carriage; every part is light and smart-looking with one exception, that to our mind goes far to spoil all the rest. The bracket at the throat is, comparatively speaking, clumsy, and so far out of proportion as to give one the idea that the diminution which has been resorted to with respect to all other

parts of the carriage had been forgotten in this not unimportant detail. We are aware that the mention of this may seem like an attempt at hypercriticism, and we must confess ourselves surprised that so trifling an oversight should have so great an influence on the general effect; but we would rather lay ourselves open to such a charge than pass by any of those trifles the strict attention to which is necessary, if real excellence is to be secured.

The dash frame is, although very pretty to look at, and suitably plain, for all practical purposes, too small and too low.

As to general arrangements. The hanging of the hind end is good, proportionate, and symmetrical; everything well-placed to its work and mechanically secured; being nowhere overloaded with strength, yet having no weak points.

With respect to the fore carriage, it is light in appearance and steady, the ironwork well-made, and in excellent style; and, as far as workmanship can go, everything that can be desired; but the shortness of the front axle, involving as it does so great a disparity in the track of the fore and hind wheels, is a serious defect off the stones, and one which goes far to neutralize the one chief good point in this carriage—its lightness. To our minds, nothing that is gained in compactness of appearance or shortness of the carriage can compensate for this evil, or mitigate its effect upon the real working of the carriage; and nothing but the lengthening of the front axle and the restoring of what we consider to be the legitimate relations of the fore and hind wheels, can make this carriage of any practical use off the stones. It is not unreasonable to suppose that on a moderately heavy road this Brougham, light as it is, would distress a horse more than one of the old-fashioned weight and size, provided it, in Coach-builders' parlance, "tracked;" and this consideration, if it be not a mistake, leads to the conclusion that a carriage which is small and light, and has this great disparity in the width of the wheels on the road, is small and light under false pretences—principles are sacrificed to appearances, realities to semblances—proceedings as reprehensible in Coach-building matters as in all others. We are aware that opinions differ greatly as to this matter of "track," and we would remark that we express our own as the result of deliberate and sincere conviction, without arrogating to ourselves the least pretensions to superior means of, or capability for, arriving at the right conclusion. One fact might be mentioned as bearing intimately, and as important evidence to the justice of our opinion, which is, that many carriages bought in London are sent to country Coach-builders to have the track made correct.

With respect to the painting, lining, and general finish, we unhesitatingly pronounce it of the first order, both with respect to workmanship and material, the colours are well chosen, and so harmonised as to commend themselves to all pure tastes. Altogether the carriage has that peculiar, quiet, unpretending, thoroughly good appearance by which the true English gentleman's Brougham may generally be recognised, and, as such, is well worthy of the honourable distinction it gained at the hands of the Exhibition jurors, and the general attention it received from Exhibition visitors.

Owing to the press of matter, we are compelled to defer the description of Mr. Mason's Waggonette, and also the French translation of our last month's article on the Exhibition Carriages, till our next number.

OUR ILLUSTRATIONS.

BOYALL, RICHARD JOHN, Grantham Carriage Manufactory, —Handsome Park or Road Phaeton, hung upon inverted double C-springs remarkably easy and very light.—Such is the description given in the Catalogue of the carriage which forms the second of our Exhibition illustrations in the present part—and although the adjectives in the said description are not sparingly used, we are not disposed to take exception thereto. In fact we consider this little carriage a highly creditable specimen, both with respect to general design and the manner it is carried out, although we are of opinion that the line of the quarter is somewhat too full, which defect deteriorates considerably from the otherwise pleasing appearance of the carriage, and in some degree robs it of that bold grace which distinguishes so eminently the best examples of the park phaeton, and to the display of which this form of carriage is peculiarly adapted. The effect of the fault we speak of on the carriage altogether is greatly modified by the lower part of the body being left open. Had the quarter been panelled, preserving the same outline, that defect in the line, which, though scarcely noticeable at first sight, is very manifest on careful inspection, would have been, we think, palpable to the most casual observer possessed of a moderately discriminating eye for beauty of form.

This error we speak of in the corner pillar and bottom side line is the more to be regretted, as it goes far to mar the effect of the other lines of the body which are excellence itself; and had the principal line but been in true harmony with them we should have had to congratulate Mr. Boyall on exhibiting one of the prettiest carriages in the building. But go where you will, and ask Where is perfection? and echo answers, Where?

By the arrangement of the body by which the lower part is left open and the upper open sticks, an exceedingly airy and light appearance is gained, and we should imagine that for park purposes carriages on this plan are likely to be much in request, seeing that there is nothing to interfere with a full display on the part of the occupants, of those wonders of the dress and toilette which would go far to drive the park lounge to despair, if that listless high-bred individual were susceptible of being driven in any direction whatever. The body, as is mentioned in the description, is hung on double inverted C-springs, and we may add, on the principle introduced by Messrs. Cook & Rowley.

This arrangement of spring appears to us peculiarly adapted to carriages of this kind, for the park phaeton must be considered more an article of luxury than usefulness, and in the building of it the sacrifice of lightness for the sake of ease is admissible, and even in some cases to be recommended. The objection we have previously made to these springs, that is to say, the unsteadiness of the draught incurred by their adoption—and to our minds inevitable, unless the object in view is to some extent sacrificed,—is not a strong one as applied to the present case. It must be apparent that while a disadvantage of this kind should be avoided at any cost in a carriage intended for town use or long and rapid journeys, it ceases to be a disadvantage in one intended for the quiet jaunt of pleasure, or for an hour's turn on smooth park roads. In short, where ease is the paramount consideration and speed, but a secondary and unimportant one, the inverted

C-spring is a very efficient and advantageous appliance, and thus we have much pleasure in congratulating Mr. Boyall on the discrimination and judgment he has shown in the choice of the principle on which he has hung his elegant little carriage, and we may add our praise of the careful and intelligent manner in which that principle has been carried out, and in which certain difficulties have been overcome, and true proportion and general harmony have been, with one exception, preserved.

Of the general arrangements too much can scarcely be said in their praise; the shape of the pump-handle and the ironwork of the hind seat is choice, graceful, and, more than all, appropriate. The mode of construction and method of fixing the said seat is also worthy of remark. Of the fore-carriage we do not consider the cranes important enough, although they are in good style, well forged, and highly finished. The other portion of the fore-carriage is an excellent piece of workmanship, whether considered with respect to construction, form, lightness, or strength.

The painting, the colour being a cool green, relieved with light green and white, is well executed, neat and chaste enough, but a little cold withal, and to our minds an improved tone would have been acquired if the ground colour had been a little warmer, and hence more capable of sustaining itself against the white relief.

Of the trimming we may say that it partakes rather of the fantastical than the choice; the scalloped elbows are ill-suited for out-of-door work—and in order to be kept clean, would require more the tender care of the housemaid than the somewhat rough and ready treatment they are likely to receive at the hands of "young men who look after horses and chaises." The two well-made nicely-corded ottomans which are intended to do duty as squabs look well enough now, but we fear very little use would cause them to give to the interior of the vehicle an air of untidiness anything but consonant with the well regulated mind of a lady; and as this is especially a lady's carriage, possible untidiness, is a matter of some importance. But whatever may be the enduring qualities of the lining of this carriage, the appearance of the interior altogether is exceedingly attractive and promising of luxury, to say nothing about a certain originality—the latter, by the way, rather a scarce article throughout the Exhibition.

The leatherwork is also rather of the fantastical—the scalloped step bootings almost impossible to clean thoroughly, and certainly adding nothing to the beauty of the carriage, the stitching partaking more of the saddler than the coachmaker, but still pretty enough, and not to be complained of on account of being somewhat out of the regular way—out of the regular way! pshaw! who is in the regular way—the 19th century is out of the regular way, but we men of it manage somehow to jog along.

The lamps are worthy of remark, and are described as "being richly ornamented in the highest style of decoration;" for our own part we should have liked them better if the ornament had not been so rich or the style of decoration so high—the lamp is one mass of silver at one portion of the carriage, which takes the eye and secures too much attention, as there is nothing else in the carriage to balance it, or to restore it to its just relative importance. On the whole we consider that the general verdict on

this carriage cannot fail to be in a high degree flattering to the builder, showing as it does an amount of trade knowledge, mechanical ability, and good taste, highly creditable to him.

"HALL AND SONS.—A Barouche on elliptic springs unusually easy and noiseless, and with self-acting body steps."

Such is the description given in the Catalogue of the carriage which is the subject of one of this month's illustrations.

We must confess, though the confession may bring our judgment and good taste into question, that this carriage appeared to us anything but a handsome one. Its form is heavy and wanting in grace; we look in vain for those elegant proportions, those delicate flowing sweeps, that rare harmony of the most beautiful lines imaginable, that light-going airy attractive conformation, which are so manifest in the best specimens of the barouche of our times, and which bid fair not only to gain for this form of carriage but to perpetuate and render permanent general esteem.

The general outline of the carriage under notice is, so to speak, a protest against the style at present so fashionable and deservedly commanding such admiration; and is built in accordance with ideas which have been for some time considered old-fashioned, and on principles which have long since fallen into disuse, so that we doubt not that many were surprised at finding it occupying so prominent a place in the Exhibition. Often a manifest contrariety between the form of a carriage and the general mode, is to be accounted for by the fact that the builder has a certain style of his own in which alone he believes, and to which he holds with greater pertinacity the more it is opposed to the commonly adopted fashion of the day; but we do not look upon the present instance as of this description, as, so far as we have noticed, Messrs. Hall & Sons are more given to adopt the general style than to insist on carrying out one of their own, a course showing more discretion and less egotism, and in the main tending in a much higher degree to the ultimate perfection of the manufacture. We are not among those who admire the extreme "clipper shape," and we regard with pain some examples of it in which the idea is pushed to such lengths, that the body of the carriage, which in all conscience and reason should be the most important part, is well nigh "clipped off" altogether; but we are persuaded that excellence itself lies somewhere between ultra "clipper" absurdity and anti-clipper ugliness, and we cannot pronounce the carriage in question as a very happy example of the golden mean of these two dire extremes. The depth of the body, the fullness of the quarters, the general want of boldness, the lines abrupt, cramped, and tortuous, give to the carriage an air of clumsiness which a barouche least of all carriages should possess—and this being our opinion, we cannot echo the statement of the "Illustrated Catalogue," that "the above is a very handsome barouche," however much we may regret to take exception to a statement backed by such authority and so unequivocally not to say forcibly expressed. It is also spoken of as being a most roomy and commodious carriage, to which we cheerfully and unreservedly tender our adhesion; and this merit is neither mean or contemptible and of too much importance to be passed by without comment at any time, and the less so at one when carriages are built with so little regard either to room or

commodiousness, that many of them are not only very inconvenient but comparatively useless. We have no doubt that to the sitters in it this carriage will be most luxurious, in fact everything that could be desired, and so may be said to be above criticism in the same sense as was the residence of the wit, who, on being spoken to on the ugliness of his mansion, replied, "Oh well! you see I live *inside* my house."

Lightness of draught is also claimed as one of the excellences of this carriage, and undoubtedly with justice, it being thoroughly well built and mechanically arranged, although, as in most carriages of the kind, the distance between the fore and hind wheels is necessarily great. We concur in the generally received opinion that, where this is the case, much cannot be said as to lightness of draught. A carriage that is eight feet, more or less, from axle to axle, does not, on the face of it, commend itself to those who stickle for this consideration; or who wish to make long journeys without trying their horses. It is said to be within the power of "brougham-sized horses," which remark is feasible enough, as any well-built barouch ought certainly not to be heavier than a pair-horse brougham. If lightness had been considered as a thing of paramount importance, the hind wheels might, if we mistake not, have been something closer up; but by this arrangement, or rather disarrangement, little would have been gained in point of draught, and much would have been sacrificed with respect to general proportion and symmetry of appearance.

Of the general arrangements of the carriage we can but speak in praise, the ironwork is moderately good, but not always in the happiest form. Of the noiseless springs we cannot say much, we are rather sceptical about the noiselessness of anything made of metal so hard as steel, and submitted to so much work and concussion as the springs of a carriage; and we consider that the secret of elliptic springs which shall be absolutely noiseless has yet to be discovered.

The painting is faultless. The colour a full-bodied deep lake, relieved with rose pink, the latter kept in its legitimate place, and not made too prominent, as is often the case. There is a pretty heraldic ornament on the door panels, surrounded by a garter, on which is the purely heraldic Latin motto, "*Honesta quam splendida*;" and this is really the touchstone of criticism with respect to this carriage, which is in point of fact more honest than splendid, more sterling than glaring, more useful than dazzling, more serviceable than attractive. It must have been more on account of the "*honesta*" than the "*splendida*" that the jury awarded the medal to this carriage, or to speak more correctly, to the builders of it; and to our minds the thorough excellence, both with respect to workmanship and material, goes far to neutralize the effects of the want of style and lack of grace which we have thought it our duty to direct attention to, and it is because people generally perceive and appreciate the "*splendida*" more than the "*honesta*" (the Latin is the motto's, not ours), that this carriage has not commanded any considerable amount of attention, and that the justice and discretion of the jurors' award has been here and there called into question. It is not improbable that sometimes eagerness for novelty, and a hankering after striking appearances, may cause many in giving their often too-hastily formed opinions on carriages

to forget that the two very necessary excellences, utility and durability, are of primary importance, and that no amount of style or elaborateness of ornamentation will compensate for their absence. To combine complete utility with the perfection of beauty, in building a carriage, is a task which only consummate skill and large experience can achieve; and when we reflect that many vehicles are built, which, laying claim to both these excellences, really possess neither, we cannot but speak well of a carriage which, as in the present instance, may incontestably lay claim to the absolute possession of one of them, and we cannot but respect the man who works conscientiously upon time-honoured principles and well-proved plans, rather than seizing with feverish anxiety upon notions novel and half digested, and flirting with every new-fangled fashion which presents itself.

The lining is of blue cloth and morocco, every part of the material of excellent quality, and the workmanship good; the same may be said of the leatherwork. All the minor appointments are choice and in excellent keeping, while the intrinsic merit and the careful and complete finish of the whole, justify us in pronouncing Messrs. Hall's barouch, despite its faults, to be a decidedly respectable specimen of sterling English carriage building.

"MASON, Carriage Works, Kingsland Basin, and Clapton.—Waggonette carrying ten persons, on improved principles, forming an open break, or exceedingly light omnibus."

In presenting our readers with the drawing of this excellently and substantially built and well and carefully finished carriage, we cannot claim for ourselves the merit of calling their attention to a work which possesses any considerable amount of originality demanding special notice, or any peculiar claims to admiration; and as in the design and construction nothing new has been attempted, there is little about it to tempt criticism or invite remark, we shall therefore have but few words to say.

"This carriage" (*vide* the "Illustrated Catalogue") "is strongly recommended for its extreme lightness of draught and luxurious roominess;" and we are far from being disposed to take exception to the statement, as we consider that it possesses these desiderata in no ordinary degree. But to the statement that it can be successfully worked with one horse, we cannot give our unqualified concurrence; the actual dimensions of the carriage would lead one to a contrary opinion, and adding to this the fact that there are places for ten persons, we should imagine that he who would work this carriage with a single horse might, although a "righteous man," be not very "merciful to his beast." But nevertheless, the carriage is, considering the accommodation it affords, a very light one, and is so arranged that we have no doubt it will prove much lighter on the draught than its size would lead the ordinary observer to expect; but after making every allowance for the diminution in the actual working weight which superior mechanism and intelligent arrangement may effect, we can but hold the opinion that this waggonette will be found for all practical purposes unsuited for use with a single horse.

The ironwork, springs, and woodwork of the under-carriage, are good in all respects; the painting, although, perhaps, somewhat too striking for general or pure taste, is well executed; the

trimming and leatherwork are faultless, and we think that the most searching observation would fail to discover any detail, however trifling, unworthy of the carriage itself. That the carriage altogether is well designed, and presents a handsome, we might almost say noble appearance, and that it is calculated to work well and work long, must, we think, be the idea of all those who have taken the trouble to form a judgment about it. And while we congratulate the builder upon his having been honoured with a medal, we believe we but echo the more general sentiment when we say that the distinction was not undeservedly bestowed.

RAPPORT DES VOITURES DE L'EXPOSITION UNIVERSELLE.

LES ILLUSTRATIONS DU MOIS DE SEPTEMBRE.

VOITURE DITE DIAROPHA, PAR CORBEN ET FILS (Pl. 9).

CETTE voiture, sans avoir aucun mérite de nouveauté ou d'originalité, a cependant quelque chose qui prouve que le dessinateur n'a pas seulement copié; mais qu'il s'est donné beaucoup de peine, et qu'il y a déployé beaucoup d'expérience et un certain degré de bon goût; quoique nous aurions pu désirer, à cause des proportions générales, que les panneaux inférieurs n'aient pas été finis si soudainement et par des bouts si pointus aux accot-toirs, car la petitesse des panneaux inférieurs donne à quelques autres parties de la voiture trop d'importance et les fait paraître trop grandes. En construisant une voiture, il n'est pas souvent recommandable de faire quelques parties plus petites qu'on les fait ordinairement: ce procédé donnant très-souvent un air lourd aux parties contiguës, et conséquemment rien n'est gagné à l'égard de la légèreté; ce procédé nuit grandement à l'effet général. Pour ce qui regarde la voiture en question, quoique nous soyons prêts à admettre que, considérée dans l'ensemble, elle a un certain air de légèreté qui compense en quelque sorte pour ce que nous considérons un manque de juste et générale proportion, nous ne pouvons nous empêcher de penser que, si les panneaux inférieurs étaient un peu plus ronds et un peu moins pointus, la voiture aurait beaucoup gagné en légèreté et aurait eu l'air superbe; nous sommes persuadés que le change n'aurait eu aucun désavantage: et si nos idées sont correctes lorsque la voiture est ouverte, nous pensons que nos remarques auront encore plus de force quand elle est fermée, car il nous semble que l'immense custode non-seulement contrastera, mais écrasera, pour ainsi dire, les panneaux inférieurs peints en cannelure; nous ne voyons pas ce qui empêchera que la caisse n'ait entièrement l'air de custode, ce qui rend cette voiture objectionnable à la plupart des goûts, et ce qui est contraire aux idées généralement reçues comme convenables dans la carrosserie.

Le train est bien arrangé, l'ouvrage au train de forge est ordinaire et ne demande aucune remarque. La caisse est suspendue par des ressorts C renversés et par des sous-pentes de cuir par derrière, et par des ressorts elliptiques sur le devant; Messieurs Corben et Fils remarquent, dans "l'illustrated Cata-

logue," que leur ressort C renversé agit aussi facilement qu'une voiture sur des ressorts C et sur une lourde flèche. Nous devons avouer que cette assertion nous a un peu surpris, mais nous nous sentons obligés de prendre la parole des Messieurs Corben et Fils comme vraie, quoique nous hésiterions à le faire à l'égard de notre parole. Nous ne voyons rien qui ait l'effet de contrecarrer l'effet produit par l'irrégularité du tirage ou pour empêcher que le mouvement de l'essieu ne soit communiqué à la caisse de la voiture ; et considérant qu'une flèche agit effectivement dans cette difficulté, Messieurs Corben et Fils comprendront, nous l'espérons, que nous leur faisons un compliment lorsque nous leur disons que, plutôt à cause d'eux qu'à cause de la conviction de notre jugement, nous acceptons leur assertion. Messieurs Corben et Fils disent aussi que leur ressort C renversé et perfectionné quand appliqué à une voiture n'en augmente pas plus le poids que celui d'une voiture à ressorts elliptiques ordinaires, s'il ne s'agit que du poids dans la balance cela est assez évident, mais s'il s'agit du tirage et de la force requise des chevaux nous ne sommes pas d'accord. S'il s'agit du poids actuel, nous sommes d'accord avec Messieurs Corben et Fils, mais si cette assertion fait allusion au tirage et à la force requise des chevaux, matière plus pratique et beaucoup plus importante, nous différons des Messieurs Corben et Fils, car nous ne pouvons pas supposer pendant un moment qu'une voiture ayant quatre roues qui changent leurs positions relatives à chaque pas puisse suivre les chevaux aussi facilement qu'une voiture dont les quatre roues conservent presque toujours les mêmes positions relatives l'une à l'égard de l'autre, comme c'est le cas avec une voiture suspendue par de communs ressorts elliptiques. Autant que nous pouvons juger l'arrangement des Messieurs Corben et Fils, l'essieu peut, non seulement prendre un mouvement de derrière vers le devant, mais aussi de côté vers le côté et jusqu'à ce que nous soyons convaincus du contraire (et nous sommes toujours prêts d'être convaincus et nous désirons ardemment être remis dans le bon chemin lorsque nous nous égarons) nous maintenons que le poids actuel du tirage est augmenté au moins de dix pour cent. Nous émettons franchement notre opinion parce qu'elle est le résultat de profonde réflexion après une mure délibération, et nous sommes assurés que nous serons supportés par tous ceux qui ont donné à ce sujet l'attention qu'il mérite et qui n'ont ni préjugé ni prédilection, et qui ont une expérience pratique qui fait supposer qu'ils arriveront à une juste conclusion. C'est ainsi que nous quittons ce sujet, nous remarquerons en passant qu'on devrait se souvenir que le degré de tension de la courroie qui mène l'essieu et qui affermit le tirage varie selon le poids dans la voiture et selon les inégalités de la route ; ainsi, s'il y a plus de poids sur un côté de la voiture que de l'autre (ce qui est souvent et presque toujours le cas), ou si une des roues va dans un trou ou passe sur une pierre, le train de la voiture n'est plus exacte, et le mal ne s'arrête pas là, car il est raisonnable de supposer que les bras de l'essieu s'usent beaucoup plus vite qu'ordinairement, et ainsi une nouvelle déconfiture en est le résultat.

La peinture de la voiture est certainement bonne, et l'imitation de cannelure est exécutée de la meilleure manière ; et est une des meilleures que nous ayons vues et supérieure à presque toutes celles que nous avons remarquées, mais nous doutons de

la propriété de canneler tous les panneaux de la caisse, car quelque judicieux que ce soit pour une voiture découverte, et quel qu'en soit l'apparence légère, nous ne pensons pas que l'effet produit dans une voiture fermée soit désirable et nous pensons que l'effet est contraire à presque tous les goûts ; mais comme, après tout, ce n'est qu'un objet de fantaisie nous n'y attachons pas beaucoup d'importance et nous n'en parlons que d'après un seul point de vue, aucune règle absolue, aucun principe n'étant violé, le criticisme devrait se contenter de se taire sur le sujet. Cette remarque s'appliquera également à la question sur la propriété de peindre une voiture en bleu rechampie de rouge et de la garnir de gris relevé de bleu. La garniture et l'ouvrage de cuivre sont bien faits ; les lanternes ne sont ni jolies ni, selon nous, en harmonie avec la voiture. De la plupart des autres détails et du fini en général nous pouvons parler avec les plus hauts termes de louange ; et la voiture considéré dans son ensemble, malgré les quelques défauts que nous nous sommes sentis appelés à faire observer, et n'oubliant pas les remarques que nous nous sommes vus forcés de faire, nous n'hésitons pas à dire que la Diaropha des Messieurs Corben et Fils est dans notre opinion un très-beau travail, et un spécimen qui fait honneur à la carrosserie anglaise.

VOITURE DITE TESSATEMPORA, PAR C. S. WINDOVER, HUNTINGDON (Pl. 10).

UNE voiture adaptée aux quatre saisons et formant une barouche, une sociable, une carrosse, et un landau. Nous ne pouvons parler très-hautement de cette voiture qu'on a appelée "Windover's Registered Tessatempora," et nous ne pensons pas que le nombre de ceux qui profiteront des divers avantages qu'elle offre sera très-grand ; on en parle et on l'avance comme la seule voiture convertible adaptée aux quatre saisons. Nous ne voyons pas pourquoi une voiture qui peut lorsqu'on le veut être promptement changée de voiture couverte en voiture découverte ne soit une voiture convertible et adaptée à toutes les saisons ou à tous les changements de temps qui probablement prendront place. Nous ne comprenons pas pourquoi une voiture à capote, pourvu que la capote retombe bien, ne soit aussi adaptée à l'été qu'une voiture dont la capote peut être enlevée et accrochée dans la remise.

De plus, la toulouse est enlevée quand la voiture est adaptée à l'été et ainsi, ou l'accotoir pour les occupants du siège intérieur de devant est très-imparfait ou il est nécessaire d'avoir un dossier rembouré qui puisse y être fixé ce qui cause beaucoup d'arrangement et autant que nous pouvons le voir sans qu'un avantage réel en soit le résultat. Nous pourrions aussi suggérer qu'avant d'avoir une voiture si particulièrement adaptée à l'été, qu'elle soit si distincte de celle en usage pour le printemps et pour l'automne, on ferait bien de déterminer ce que notre été vraiment est, quand il commence et quand il finit et quand la métamorphose véhiculaire doit avoir lieu. Un été anglais a été souvent dépeint comme "Trois beau jours et un orage ;" et notre expérience nous permet à peine de disputer la vérité de cette défini-

tion qui est si près de la vérité. Il nous semble donc que de soustraire à une voiture les provisions contre le mauvais temps de manière à procurer aux occupants une parfaite et une libre jouissance du beau temps serait, non seulement de l'ouvrage vain, mais aussi un procédé très-indiscret et très-léger.

La voiture dans sa forme de printemps est semblable aux landaus ordinaires; le cerceau de devant étant pris sur la capote de derrière et le second agissant comme pilier de la porte, d'après la manière introduite il y a quelques années dans les barouches Léopold. Il y a plusieurs autres arrangements qui compliquent la construction de cette voiture et qui en rendent les changements difficiles à effectuer. Il est à peine nécessaire de faire remarquer qu'avec tous ces arrangements à moins que le mécanisme et l'ouvrage ne soient de premier ordre et que le plus grand soin ne soit pris par le cocher ou par quiconque fera ces changements, il est très-probable qu'il arrivera des difficultés qui rendront nécessaire l'assistance du carrossier le plus près; en attendant, la voiture aura probablement à rester dans une position à mi-découverte et à mi-fermée et convenable conséquemment pour aucune saison. Nous présumons que la voiture dans sa forme de printemps doit s'ouvrir et se fermer comme le landau ordinaire. Mais nous pensons, d'après la rondeur des coins du dessus de la voiture au haut des portes, que l'apparence quand elle est ouverte ne doit pas être belle; de l'apparence qu'elle doit avoir quand elle est fermée aux parties supérieures, nous ne disons rien. L'utilité et l'efficacité de cette voiture quand elle est disposée en landau, nous ne sommes pas inclinés à mettre en question. Cette voiture est sans doute très-convenable dans le printemps quand les changements de température sont soudains et sévères et quand un jour d'été est très-souvent suivi d'une nuit d'hiver: pour de tel temps le landau ou toute autre voiture qui pourra le remplacer avantageusement sera toujours une voiture désirable quel que soit le nom qu'il plaise au carrossier de lui donner, Tessatempora ou quelque autre nom extraordinaire. Pour l'automne, Mr. Windover recommande la voiture avec la capote et la toulouse, comme on s'en sert dans les voitures découvertes de temps immémorial. Quant à nous, nous ne voyons pas de différence assez marquée entre le printemps et l'automne pour justifier un tel changement dans l'équipage.

Nous arrivons maintenant à l'hiver. La voiture pour l'hiver a une fenêtre dans la custode de devant de manière que, quoique parfaitement fermée pour quatre personnes elles peuvent jouir d'une bonne vue au dehors; et les occupants ne sont alors pas privés de la jouissance du jour, ce qui a lieu dans la voiture dans sa forme de printemps ou de landau; ce qui n'est pas un petit avantage, et nous aurions beaucoup de plaisir à louer Mr. Windover, si nous ne savions pas qu'il existe un certain genre de voiture qu'on nomme Diaropha et Amempton. La Tessatempora n'est autre chose dans sa forme d'hiver qu'une Amempton. Il peut y avoir de l'originalité et de la nouveauté dans cette invention trop profondes et trop subtiles pour que notre intelligence obscure puisse les saisir, ou que notre ignorance puisse les apprécier. Mais pour le présent nous ne pouvons voir aucun but pratique qui distingue la Tessatempora sous sa forme d'hiver de l'Amempton qui a déjà été exposée en 1851 et a si bien gardé sa place qu'elle reparait en 1862, avec très-peu de modi-

fications et est aussi recherchée que jamais. A l'égard de l'effet général de cette voiture, elle a l'air lourd et nous n'avons pas besoin d'aller loin pour trouver des voitures dont l'apparence soit plus légère quoique aussi commodes, à l'égard du style il n'y a rien qui puisse la recommander, la forme est un assemblage de lignes destituées de grâce et d'harmonie.

Le total manque d'harmonie dans le contour donne l'impression que la caisse a été faite sans plan prémédité ou que le plan primitif était de faire quelque chose d'autre, et que la présente forme est le résultat d'une seconde réflexion, mais il est douteux que la seconde réflexion soit la meilleure.

Nous passons pardessus la peinture qui jugée sévèrement est loin d'être de mauvais goût. La garniture et l'ouvrage de cuir ne demandent aucune remarque. Le garde-crotte nous a frappés comme absurdement petit à l'égard de la proportion aussi bien qu'à l'égard de l'utilité.

Nous aurions désiré que nos remarques sur cette voiture eussent été plus favorables; il nous est toujours plus agréable de louer que de mépriser, cependant nous n'oublions pas que, si la critique vaut quelque chose il faut qu'elle soit impartiale, ce qui nous mette dans la nécessité de mettre à part toute considération personnelle, et nous espérons que notre sincérité sera apparente à nos lecteurs et les convaincra que nous ne retenons jamais volontairement la louange injustement ou que nous ne la donnons jamais sans raison, que nous ne montrons jamais de la prédilection ou de l'hostilité, mais que nous cherchons toujours à donner une opinion candide sur tous les sujets amenés sous notre considération.

THE PRELIMINARY REPORT OF THE JURY OF CLASS VI.

IN our last number we printed the above-named Report, in the conviction that our readers would thank us for furnishing them so lucid and comprehensive a statement of the broad facts of the case, and so many apposite reflections and pithy remarks on a subject of so much interest and importance to all Coach-builders, who, as they have read it, have no doubt felt that their best thanks are due to Mr. G. N. Hooper, the reporter, for the able manner in which he has performed a task of considerable difficulty; and we cannot but appreciate and admire the trade knowledge and gentlemanly feeling, the carefulness of attention, the moderateness of expression which the Report throughout displays. Reading it as we do after devoting much time and consideration to the objects reported on, we cannot but be struck with its complete truthfulness, its freedom from bias, and the utter absence of anything like glossing over, cooking up, varnishing, or any attempt at misrepresentation in its milder forms.

The principal characteristic of the carriages exhibited, as distinguishing them from former Exhibitions, is lightness; and this excellence is not only one which the age will most readily appreciate, but in the attainment of it profound mechanical knowledge, large experience, and the utmost care must be exercised, and the report bears unquestionable testimony to the possession of these qualities on the part of the exhibitors when it asserts that lightness is the distinguishing feature of their works. The

absence of "decorative, Court, or even town carriages" is touched upon with some regret as being detrimental to the attractiveness of the general display; the great expense attending their production and the pecuniary loss involved in exhibiting such delicate wares being pleaded in excuse for their absence. We think that this deficiency is an indication of the difference which can be traced throughout the entire Exhibition of '62 as compared with that of '51; it has been observed that the Exhibition of '62 was "of the shop, *shoppy*," and "of the bazaar, *bazaarry*," and the fact that carriages most likely to sell and bring trade to exhibitors having been most generally shown, goes far to substantiate this somewhat quaint and not over elegant assertion. It is not the business of a manufacturer to devote his energies and spend his money for the sake of glory, or to the end that he may produce something which everybody will admire but nobody will buy; your artist, if he be a wise man, paints pictures, not to realize his grand ideal of what a painting should be, but so chooses his subject and his mode of treating it as to produce something that the public will buy. To have produced a great work, and to receive the praise of critics and the applause of non-purchasers, is something; but a balance at the banker's is also a something which the world thoroughly appreciates and the most enthusiastic seldom fail to comprehend. And if these considerations are not counted blameable in men who are supposed to be teeming with artistic inspiration, replete with divine afflatus, and who would not be thought mad if they talked of posthumous fame, surely it is admissible in men who are engaged in a trade not so much from any love they have for the hard work it involves, or a desire to earn for themselves a name, as the very laudable and thoroughly-understood ambition of making money. We are far from asserting that the money-making principle has been in all cases in the ascendant; but that it has been far more preponderant in the present Exhibition than in its predecessor of '51, the Report, our own observations, and what we can hear of general opinion, justify us in concluding.

But despite this there is some comfort in the fact that the reporter can assert that the display of carriages shows that progress has been made—if luxury be wanting, utility everywhere abounds.

In the third paragraph of the "General Report on Carriages," some allusion is made to the troubled question of the allotment of space, and if we read the Report aright, after the space for the carriages had been apportioned, it was discovered that it was not possible to devote so much space by nearly one-third to the carriage department, and the allotments had consequently to be reconsidered. This being the melancholy state of the case, it is scarcely possible to imagine any body of gentlemen in a more dire dilemma than was the coach-makers' committee at that time, with carriages coming in, and space for them existing only on paper, with the knowledge that work was in progress and money laid out on the strength of their allotment, with a desire to please everybody and a resolution we doubt not to do their duty to everybody. What was to be done; it was evident that some of the carriages for which space had been promised could not be received, some must be shut out,—which and whose, formed a question almost as impossible of satisfactory solution as would be an effort to discover the perpetual motion

or to square the circle; but still an answer must be had, and if the solution of the difficulty produced some malcontents, their discomfiture must be received as the natural result of the situation. Many wonderful things may doubtless be done when attempted with a will and resolve to succeed, but how to put fourteen or fifteen carriages into the space required by ten, is a difficulty the solution of which would be a boon to London coach-builders, with whom the item of rent is a matter of some importance. We regret that a blunder, or, as the Report puts it, "an error in calculation," should have been cause of dissatisfaction, and should have brought about the expression of ill-feeling from certain quarters. We abstain from giving an opinion on the reasonableness of the complaints of those who consider themselves ill-used by the treatment they met with, when the dread fact of too many carriages for the space stared in the perplexed faces of the committee; and we abstain from the discussion of a question on either side of which much may be said, and upon which, perhaps, the less that is said the greater is the probability of an amicable conclusion. We may, however, remark as we quit the subject, that the paragraph in the Report which alludes to the apportioning of space commences with the words, "Most unfortunately," and these should be accepted as an honest expression of the regret experienced by the committee on finding themselves placed in a predicament from which it was impossible to emerge without giving cause of offence to some one, and we cannot but think that the blame, if any, should rest on the heads of those who perpetrated the "error of calculation" which placed the committee in so unsatisfactory a position towards their fellow-manufacturers.

The difficulty of getting a display comprehending a fair relative number of each description of carriage in use, is one which the committee soon discovered, but which they offer no remedy for.

It is curious, and worthy of remark, that in the paragraph which precedes the one commencing with "Most unfortunately," and regretting the curtailment of the space allotted to the Carriage Department, we are informed that one of the first steps taken by the committee was to "issue a circular to all the principal manufacturers" whom, for the sake of the character of the display, it was desirable should contribute and who had not applied for space, urging on them the desirability of an effort on their part to do their best towards making the display of the British coach-builders as excellent as possible, and that the credit of this branch of manufacture, in which we have heretofore considered ourselves and been admitted on all sides to stand pre-eminent, might not suffer from the first houses standing aloof, and leaving the space in the Exhibition to be filled by second and third-rate men, some of them perhaps little more than mere carriage dealers, men who know little and care less about the credit and prestige of any branch of industry whatever, and whose ambition would be realised and their wishes gratified if they could only get their goods advantageously placed within the notice of possible purchasers. This appeal we are told was successful, several responded to it, although some leading manufacturers persisted in their reticence.

(To be continued.)

OUR ILLUSTRATIONS.

THOMPSON, Perth.—Registered Dog-Cart.—In presenting the drawing of this carriage to our readers we are almost at a loss to say anything by way of comment; it is designed to be essentially an article of utility, and so thoroughly carries out that intention that criticism seeks in vain for a peg whereon to hang, we won't say itself—well, its remarks—and looks almost in vain for any feature or peculiarity calling for remark. One leading consideration that occurs to us, is, that the inventors of this dog-cart have converted what used to be an incommodious and uncomfortable carriage into a commodious and a comfortable one. The dog-cart of ordinary form has not the appearance of safety and security which the carriage under notice possesses. The occupants of the hind seat in the former generally seemed to have a somewhat unhappy time, perched on a shelf rather than in a carriage, and to be always in peril of being left suddenly behind. A case came once under our notice, of three men driving rather briskly in one of the usual “*dos-à-dos*” affairs. The “party” was missed from the back seat, and on his friends looking round after him, they saw him in the corner of the garden they had just passed, in rather a dilapidated state as to hat, and ruefully listening to the shrill comminations of an old woman whose cucumber frame he had demolished in his unexpected descent. A sudden turning of the trap had thrown him over the hedge into the territory of this irate landed proprietress, who seemed to have no mean idea of her rights as such. A reference to the drawing will convince our readers that Mr. Thompson's dog-cart is not likely to cause such an accident; moreover, the seats are roomier, the leg room very comfortable, and the legs and feet of the sitters in the carriage are protected; and we should imagine that where it is required to carry any one but a groom on the back seat, this carriage would be generally preferred; the superior accommodation it offers for dogs, luggage, &c., is another strong recommendation, and one having great weight with country gentry, amongst whom we should suppose Mr. Thompson finds the majority of his customers. Altogether, it is an exceedingly useful and well-contrived carriage, calculated to answer perfectly all the purposes required of it. We feel we ought to call attention to a flat basket or tray which was fixed under the body of the carriage at the hind part, as a very useful and at the same time simple appliance to such a carriage.

Having said this much in its favour, we may be pardoned for remarking that the general appearance of the carriage is not first rate, there always appears to us too much of the cart element; most of those we have seen out have not been eminently suggestive of gentility, and we have been at a loss to discover the elegance spoken of by the enthusiastic writers of testimonials to the excellence of this carriage. In attesting to the usefulness of this dog-cart we would go quite as far as the most zealous of Mr. Thompson's friends; but as to the elegance, our ideas with respect to what is elegance in an English gentleman's equipage must undergo utter revolution before we can subscribe to any such opinion. A gentleman's carriage, if it be what it should be in appearance, cannot possibly be taken for anything else, and although our aristocracy are content to ride in dog-

carts, and object not to the name, the “cart” must be a carriage in fact; and any vehicle in any degree suggestive of the cart, properly so called, is not likely to find permanent favour in their sight.

It is said that the sale of these carriages is something enormous; and when we consider the smallness of the price, the great utility and convenience, the security and durability which they promise, their extensive use among a certain class of carriage users is not to be wondered at. The carriage exhibited seemed to us more carefully constructed and more highly finished than other specimens we have seen, at all events in point of workmanship and finish. We may add that Messrs. Peak, the well-known firm, are the agents for this carriage.

ROCK & SONS, Hastings.—A Diaropha with patented improvements.—In the performance of the task we have taken to ourselves, of offering an opinion on the collection of carriages, it has seldom been our good fortune to come on a specimen to so great an extent silencing criticism by the completeness of all its details, and by the happy combination of all the excellences and desirable attributes of a first-rate carriage,—bold outline, elegance, grace, lightness, commodiousness, ingenious mechanical combination, high-class workmanship, well-considered arrangement and careful finish, and last though not least—and rarest of all—a certain amount of originality may, we think, be claimed for this carriage; and believing all this may be said without subjecting us to the suspicion of partiality, and that there are no defects so important as to any extent to mar the good qualities, we cannot but consider that the builders of this carriage deserve well of the trade for so important a contribution to its portion of the International Exhibition.

Of all the carriages intended for a variety of purposes, we must claim for Messrs. Rock's Diaropha the first place. No innovation or invention is now-a-days safe from “base and spurious imitations,” as the advertisements have it, and although we are far from wishing to class the coach-building trade with the notable vendors of medicinal quackeries, and are least of all disposed to quarrel with that spirit of enterprise which eagerly seizes upon every available improvement and applies it to its own purposes, we cannot but remark upon the avidity with which coach-builders have caught at the idea originated and developed by the Messrs. Rock. Indeed we think they have some very reasonable cause to complain of the manner in which their idea has been adopted, or, if not to complain, at least to congratulate themselves on the manifest concurrence of many builders in their views of the matter, and to feel a considerable amount of gratification at the liberal allowance of that sincerest flattery called imitation which has been vouchsafed to them; and this adoption of their idea, which has been attended in many cases with so much originality as to acquit those who have merely taken the idea from the charge of servile imitation, is the natural result of the real merits and efficiency of the invention itself. Despite the want of eagerness on the part of the British public to take up with everything that is new, they are tolerably apt to avail themselves of any discovery calculated to render them real service; and that the inventor of the Diaropha rendered real service, no one can doubt

who has had an unhappy experience of the appliances for making a carriage opened or closed for four persons, which this *Diaropha* system has superseded. Thrice happy he who has not a vivid recollection of the miseries, the disappointments, and the general discomfiture and unprofitableness to all parties concerned, of that futile, ramshackle, unsightly abomination, that varnished pretence and transparent imposture known as a "fitting up with German lights," which years ago made so much noise in the second-class coach-building world, who is not haunted by the remembrance of the ugliness of these contrivances. The head with the front slat put back, and taking the form of ugliness itself, or if the front slat were left extended the doorway was of such a shape as to render ingress and egress only possible in comfort to a posture-master or a gymnast, and then the doors opening separately and coming asunder, the lower door falling from the upper in such wise as to convey to the uninitiated an idea that something dreadful had happened to the whole affair. And this fitting-up generally speaking would never go up at all when, as was generally the case, the attempt to adjust it was made by a not over-patient coachman, who, after confusing of screws, misplacing of the various detached pieces, and possibly not a little bad language, would do some irremediable damage and call for the coach-maker in despair; or if, by sheer good fortune, the fixing-up were accomplished, almost the same difficulties beset the unfortunate mortal (if he did not happen to be a coach-maker) whose business it was to take it down. But supposing the servant in charge of the carriage to have been thoroughly instructed in its ins and outs, and blessed with more patience and aptitude than is common amongst coachmen, and the difficulties in adjusting or displacing to be overcome, what was the result? In all cases ugliness, and in most cases inefficiency. Seldom was the enclosure absolutely proof against very heavy rain, and from the unsubstantial nature of the fittings, persons in the carriage, if the weather were cold, would need a something to "stop a hole and keep the wind away." Or if these sources of discomfiture, as in rare cases they might have been, were set aside, the appearance alone of a filled-up enclosure made the affair anything but a desirable possession, and the slovenly appearance of the leathern canopy was the very acme of vehicular untidiness; and if, as was not often the case, it was thoroughly and neatly fitted at first, it would soon become so contracted as to sink between its iron supports, and give to them the appearance of the protruding bones of some wretchedly ill-conditioned animal; the knee-boot flap, too, used to protrude from the sides in a most unmeaning and uncomfortable manner, making the arriving at any appearance of finish an utter impossibility. We are not forgetful of the great improvements made in fitted-up carriages by Messrs. Laurie & Marnier, and embodied in their very excellent Leopold Barouches; but with these last, the inconvenience arising from the necessity of taking care of many detached pieces and adjusting them when required remained the same, and from their form and the fact of their being painted outside and lined with cloth or silk within, and containing much glass, were seldom, we should think, taken up and down without sustaining serious injury. After all, the very best fitted-up carriages were a makeshift; and the fact that they have fallen into disuse, notwithstanding the great attention

given to them, and the ability and ingenuity displayed in their construction by these eminent builders,—prove that a radical change was called for, and that something infinitely better was required unless the idea of a carriage answering two purposes were to be abandoned altogether. And this radical change was effected, and this something infinitely better provided, by the inventor of Rock's patent "*Diaropha*," and in it we see for the first time a carriage complete in either form, not necessarily involving much trouble in changing from one form to another, and, if the most ordinary care be exercised, not in any great degree susceptible to damage. When the top is detached, it is suspended out of harm's way; and, if covered up and kept in a dry place, might lie by all the summer and be dropped on to its place at any time as fresh and in as good condition as ever, and the change, though so easily wrought that any one with the proper use of his hands can effect it without difficulty, is radical and complete; there is no makeshift, nothing unsightly or in any way objectionable, and the carriage in either form has no appearance of being capable of or of having been subjected to any metamorphosis whatever. Thus far we go with Messrs. Rock, and accord to them our best praise, in which we have no doubt that the general opinion of those most capable of judging will concur; but we cannot but think that the supplementary head is too much of a good thing, and that the advantages offered by it are not commensurate with the trouble and expense involved. But this is rather a matter between Messrs. Rock and their customers than one for us to give an opinion on, and does not intimately touch the merits of the carriage itself, although we may say in passing that augmented strength and necessarily increased weight would be required in the lower parts of the carriage, to withstand the strain of the landau head, while the fixed coach head would rather tend to strength than otherwise; and although it may be said in objection to this, that the strength necessary to the barouche is quite equal to carry the landau upper works, and to keep them in those precise relative positions essential to their efficiency, there may be, we think, certain considerations which will occur to the practical reader, inducing some reasonable doubts on the matter.

And this landau head increases an objection which has been made to the "*Diaropha*," that is to say the space it takes up; the *Diaropha*, as at first introduced, with coach head only, requires a coach-house of great height from the floor to the roof, or else almost large enough for two carriages, or the barouche head must always be down, an arrangement we should think greatly tending to spoil it. The very best leather, if folded together while damp, and left so, would soon be so disfigured as to render it unfit to be seen. And so we must suppose the coach-house must be large enough to accommodate the coach head suspended and the barouche with the head up; and, if we add to this the fact of the landau head taking also its proper amount of space, we shall arrive at a conclusion somewhat detrimental to the probability of the many special advantages detailed with perfect truth in Messrs. Rock's circular being very generally availed of—the smallness of the coach-house, as we have many times heard, is often the reason given for having two carriages in one; and if this be so, Messrs. Rock to some extent cut the ground from under them. And this consideration, though appa-

rently trivial, is not altogether so, as carriage users, who would have two carriages, do so under the idea of decreasing the expense, and would therefore give some thought if an increased rent were involved, and rent, especially in the carriage-keeping districts of London, is a consideration not to be despised.

There are many good reasons for having a carriage with a coach top for winter use, the leather head, although not causing the drumming noise apparently inseparable from carriages with wooden upper parts and roof, and hung upon elliptic springs, is neither so warm nor so comfortable as the latter; and, moreover, the common landau, with the leather quarters back and front, is a dark and cheerless carriage, and, if it be lined with a dark colour, rather suggestive of a penitentiary, the look-out is limited to the door glass, and it is almost impossible to sit comfortably and to see what is going on around you at the same time, hence landaus with a light in the front, although necessarily unsightly when open, are often preferred; but the "Diaropha," with the coach top on, is in all respects a comfortable, pleasant, and cheerful carriage, and as such will commend itself to all gentlefolks who have an objection to be shut up, if not in darkness, at least in gloom. Our winter days are not so abundantly blessed with daylight that we can afford to exclude it from us, so that we think that the addition of the landau head, if not actually like putting a fifth wheel to a carriage, should be taken more as a display of ingenuity than as ministering to actual utility.

Of the general arrangements and proportions we can speak in the highest praise; the height and position of the wheels, length of springs, &c., bespeak sound judgment and matured experience; the front boot ironwork is excellent with respect to form, forging, and finish; the fore-carriage is a first-rate combination of wood and iron; light to the view, strong to its work—in fact displaying all the choice qualities and desiderata of modern coach-building—there is no carving properly so called,—the dub ends terminate in a point with a degree of finish and piquancy which goes far to compensate for a severity and plainness which might to some tastes be objectionable, but which is of practical importance as greatly facilitating the proper cleaning of the carriage.

The iron-work to the hind carriage is graceful, but we are at a loss to perceive the utility of a joint about the middle of the pump-handle iron,—a reference to the drawing will explain our meaning; it seems to us that the only result of this joint will be an unnecessary amount of wear and subsequent rattle, without any collateral advantage; perhaps it is requisite that one should see the carriage actually at work in order to appreciate the utility of this appliance; with respect to the springs, we are of opinion that no carriage serving two purposes can be pronounced perfect unless some means are resorted to of compensating for the difference between the weight when the top is in its place and when the carriage is in its open form—but the difference of the carriage in its two forms is not so great as if, as in one carriage of which we have spoken, it is proposed to take off the barouche-head altogether.

The steps struck us as unsightly; and although presenting, on being pulled down, a clean carpeted tread, are to our thinking, on account of the appearance when folded, the least commend-

able portion of the carriage—we may almost add that they are a disfigurement.

The painting is very excellent, and has a novel feature, that is to say a rail, some three inches wide, running from back to front, is painted a fine lightish blue, while the principal portions of the body are a fine deep lake, the effect of this is (to our minds) somewhat fantastical, but that it gives a lightness to the general appearance is not to be doubted; and we do not see that it is any more contrary to accepted rules than the rail of imitation cane so generally admitted, and so much in vogue; and this arrangement of colour claims our notice, at all events, on account of its originality, it is, to say the least of it, an idea, it is for the public taste rather than our fancy to decide on its adoption. The picking out and fine lining is exceedingly neat and well chosen as to colours and execution, and is of that quiet character which is calculated to please most tastes and to offend none.

The lining and the leather-work is first-class, both with respect to material and workmanship; and all the minor appointments are in such good keeping that we should think that the most fastidious would fail to find fault, however prone they might be to that amiable employment.

A reference to our illustration will convince our readers that too much cannot be said of the beauty of contour and rare harmony of lines which this carriage presents, and while we congratulate the builders on the enviable and well-deserved distinction they have received at the hands of the jurors of Class 6, we think we may safely commend them as being amongst the foremost of those who, by their unquestionable abilities and close application, have done so much to advance the progress of their art, and have secured and preserved, under rather a trying ordeal, the time-honoured pre-eminence of British Coach Builders.

THE REPORT OF THE JURY OF CLASS VI.

(Continued from page 52).

THUS we see that the committee issued invitations and afterwards found themselves too short of room to accommodate all those who accepted them; and the result was great anxiety and trouble on the part of the committee, and dissatisfaction out of doors, which those who considered themselves wronged have made no secret of, and in some instances have very forcibly declared themselves as not belonging to that estimable body of martyrs who suffer in silence. We have no doubt that the Report will be as oil on the perturbed waters of the bitterness of the rejected, and will console them with the thought that a matter of no less consideration than the laws of space stood between them and their wishes, and that their carriages remained outside the building for the simple reason that there was not room for them within: at any rate, we think that the Report, whatever may be their personal grievances, must convince them that the committee were actuated by a sincere desire to make the Carriage Department of the Exhibition as far as possible a complete manifestation of the state of carriage manufacture in Great Britain.

With respect to the choice of jurors, we could have wished that the Report had been less ambiguous than when it uses such

a sentence as "*It is believed* that those who *may be said* to have polled the greatest number of votes are now the British jurors of each class." We should like to know by whom "*it is believed*," and why such words as "*may be said*" should be used in a matter of fact, the truth respecting which would, we imagine, be not difficult to arrive at.

It appears that notwithstanding all that has been said with respect to the accommodation offered to coach-builders in '62, they were much better provided for than they were at the Exhibitions of London, 1851; Dublin, 1853; or Paris, 1855; and that any complaints which might be made cannot be backed by drawing comparisons with former experiences. The only complaint the Report has, is of the dust through the floor of the picture gallery, and the coarseness of what the reporter, we hope not sarcastically, dignifies with the term "wall-decorations." When we recall the lime-wash and the stripes of distemper, the term strikes us as being a bit of quiet humour and a sly innuendo worthy of a thoroughly good-natured gentleman. The tables embodied in the Report are comprehensive and concise, and valuable as giving at one glance a complete summary of the whole affair; or, we ought rather to say, would do so if in the list of what we may term carriage accessories the important item of carriage lace had not been omitted. We think there were at least four exhibitors of these goods, and we are at a loss to account for the absence of all allusion to them in the tabular statement, or in any other part of the Report; the omission the more surprises us as we consider the display to have been excellent. There were one or two exquisite specimens in the samples exhibited by Messrs. Cooper & Blackford, and the show case of Messrs. Whittingham and Wilkin contained some examples of design and workmanship equally worthy of notice. Springs, heraldry, and the solitary exhibitor of shafts, are honoured with a place in the Report, to say nothing of a velocipede and perambulators; and this being the case, we are quite at a loss to conjecture the cause of the omission we speak of, especially as lace is a very important item in the finishing of a carriage; and if we are rightly informed, our countrymen are generally considered pre-eminent in its manufacture. We regret the omission the more when we reflect that reports like the one under notice will soon become a part of history, and will be referred to as an authority on a great public event long after personal reminiscences have faded out, and newspaper and journal articles on the subject cease to be read or quoted; and regarding the Report in this light, which we think a legitimate one, we cannot but regret any omission, however trifling—any error, however apparently unimportant. But the thing is done, for we cannot expect a re-issue of the Report with an erratum or appendix.

It is gratifying to Englishmen to know that their contributions far outnumber those of all foreign countries combined, and to Londoners to know that those of London outnumber those of provincial towns. But one thing must have struck all conversant with the subject, that the relative excellence of these carriages has undergone a change, and that since 1851 continental and provincial builders have made rapid strides in the progress of their art, and that Londoners must be up and doing if they would not have their brethren in the provinces

awakening them. The reputation of the London carriage trade has suffered lamentably from the fact that the metropolis is the favoured spot where general dealers, slop shops, and trade adventurers "most do congregate;" and it will, we think, call for the best energies of the legitimate and well-qualified manufacturers to preserve for London its so long undisputed reputation for carriage-building.

We have furnished us in the Report before us some very useful information with respect to foreign woods adapted for carriage-building purposes, and seeming to indicate a new mine of wealth for our colonists. Canada bids fair to stock our yards, if its neighbours do not make bonfires some fine day of its forests; and India, Australia, and the West Indies, New Zealand, Natal, &c., might advantageously be laid under contribution; and thus we may go on building carriages as fast as we can, without fear of denuding our pretty English landscapes of all their waving adornments; and we have a panacea for those alarmists who have drawn a harrowing picture of some persistent Briton hewing away at the last tree on the island.

The Report attests the excellence of some of these woods as regards "strength, toughness, elasticity, size," etc., and regrets that the list of colonial woods useful to the coach-builder inserted in the report on the carriages in the Paris Exhibition seems up to the present time to have remained a dead letter; and attributes the fact to the limited circulation of the official reports, and suggests the publishing of the reports in a separate form, or appending them to the illustrated catalogues. We may suggest that the existence of trades journals, which place within the reach of their subscribers all such information, and are always at hand for reference, and so arranged that anything required to be known may be readily found, is calculated more than any other means to meet this requirement, as the information will be always at the fingers' ends of the very men likely to put it to practical purpose, and in a form exactly suited to their wants. The Jurors' Report in the *CARRIAGE BUILDERS' & HARNESS MAKERS' ART JOURNAL* is a case in point, palpable to all; and if to the report on woods were added from time to time the experience of coach-builders who may think proper to make experiments with foreign woods—and we should imagine the Report will induce many to do so—we would give the results to the trade through the medium of our columns, and shall be always open to receive well-authenticated communications. Our subscribers would then be in the possession of invaluable data on most interesting subjects, and doubtless all the four corners of the earth would soon be pressed into our service as furnishers of raw material. Our exports would be increased by the fact that we could send carriages manufactured of tropical woods to tropical climates. Reason and what information we have been able to gather alike teach us that for hard woods those which best stand extreme climates are those native to them.

Some allusion is made to the two light carriages contributed by America, and the skill with which the Americans make light wheels by machinery. For our own part we never saw a machine-made wheel which could compare in appearance to those made by hand; and as the style of the wheel goes to make or mar the general effect of a carriage, we do not think that machine wheels will be for some time generally adopted in this country.

The application of machinery to the manufacture of private carriages is also ably touched upon, and the difficulties in the way to a certain extent indicated. We may at some future time devote ourselves to a close examination of this subject, but at a first glance it appears to us that first-rate sculpture is as susceptible of being produced by machinery as first-class carriages. The form of a perfectly-shaped carriage existed in the mind of the workman before it was visible in wood and iron; and until we can put the mind of the workman into the machine, we cannot expect it to achieve the same results. We may suppose a carriage made by a first-rate workman to a perfect design, and a hundred copies of it being made by machinery, they shall be painted the same colour and all equally finished, and we doubt not, although we do not attempt to explain it, that if a real connoisseur were to take his choice of the hundred and one, there would be something about the hand-made one which, amongst all the others, would seize his attention and secure his preference. It seems a law of artistic production, that beauty of form, to approach perfection, must have received the touch of the hands of the possessor of beauty in idea.

RAPPORT DES VOITURES DE L'EXPOSITION UNIVERSELLE.

LES ILLUSTRATIONS DU MOIS D'OCTOBRE.

PETIT BROUGHAM DE VILLE COUPE A DEUX PLACES, MESSIEURS WYBURN ET CIE., LONG ACRE, LONDRES.

Parmi les meilleurs de l'Exposition un peu indifférente des Broughams, il faut placer celui dont nous donnons le dessin ce mois-ci.

C'est une voiture assez bien construite et arrangée de manière à ce qu'elle donne plus de place dans l'intérieur que son apparence extérieure nous le ferait supposer. Cette voiture, quoique beaucoup plus petite que ce genre ne l'est généralement et puisse être appelée une miniature, l'extrême petitesse a été évitée, il y a, sans aucun doute, assez de place pour que deux personnes y soient confortablement assises; l'entrée et la sortie peuvent se faire sans difficulté et même avec facilité. En disant cela, nous croyons donner la meilleure louange à une voiture tellement réduite dans ses proportions extérieures et si légère dans son apparence générale.

Quant au contour général, le style en est pure Wyburn et diffère considérablement de la mode actuelle adoptée par les autres constructeurs. Les lignes inférieures principales sont réunies en une seule. L'angle si généralement adoptée par les autres constructeurs a été systématiquement évitée dans les Broughams construits par ces carrossiers. Par cet arrangement une excellente occasion est donnée pour introduire la célèbre ligne de beauté et de grâce comme le trait principal de la voiture. Quoique le garde-crotte soit très-joli à regarder, il est, pour tout usage pratique, trop petit et trop bas.

Quant à l'arrangement général, la suspension de derrière est bien proportionnée et symétrique, tout est bien placé pour son travail et mécaniquement fixé, n'étant nulle part surchargée de force et cependant n'ayant pas de point faible.

A l'égard du train de devant l'apparence en est légère et ferme, l'ouvrage au train de forge est bien fait et d'un style excellent, et, quant au travail, tout ce qu'on peut désirer, mais la petitesse de l'essieu de devant causant une si grande différence dans le train de la roue de devant et de celle de derrière est un sérieux défaut sur les routes non pavées et un défaut qui neutralise grandement la qualité essentielle qui distingue cette voiture, c'est-à-dire sa légèreté.

A l'égard de la peinture, de la garniture et du fini en général, nous disons sans hésiter que l'un et l'autre sont de premier ordre pour ce qui regarde le travail ainsi que le matériel, les couleurs sont bien choisies et harmonisent si bien qu'elles se recommandent à tous les bons goûts. En un mot, cette voiture a cette bonne apparence tranquille et sans prétention par laquelle on reconnaît généralement la voiture d'un vrai *Gentleman* anglais; comme telle, elle mérite bien la distinction honorable qu'elle a gagnée des mains des jurés de l'Exposition et de l'attention générale qu'elle a reçue des visiteurs de l'Exposition.

BOYALL, RICHARD JOHN, GRANTHAM MANUFACTURE DE VOITURES.

VOITURE dite, Handsome Park ou Road Phaëton, suspendue par de doubles ressorts C renversés, remarquable par son aise et par sa légèreté. Telle est la description donnée dans le Catalogue de la voiture qui est la seconde de nos Illustrations de l'Exposition dans la présente partie; et quoique on n'ait pas épargné les louanges dans cette description, nous ne sommes pas disposés à en disputer les mérites. En effet, nous regardons cette petite voiture comme un beau specimen, à l'égard du dessin général et de la manière dont il a été exécuté quoique nous soyons d'opinion que la ligne principale soit un peu trop ronde, ce qui nuit considérablement à l'apparence agréable que cette voiture présente à d'autres égards, et lui enlève jusqu'à un certain degré cette grâce hardie qui distingue éminemment les meilleurs specimens de Park-phaeton.

L'effet du défaut dont nous parlons est grandement modifié en ce que la partie inférieure de la caisse a été laissée ouverte.

Si la caisse avait eu des panneaux conservant le même contour, ce défaut, quoiqu'à peine remarquable à première vue, est très-palpable à celui qui observe de plus près et qui a un œil pour discerner la beauté de la forme. Dans le tout nous considérons que le jugement prononcé est très-flatteur en faveur du constructeur comme prouvant un bon degré de connaissance dans son état, d'habileté mécanique et de bon goût qui lui font crédit.

HALL ET FILS.

UNE Barouche sur des ressorts elliptiques agissant d'une manière facile et sans bruit à un degré peu commun et avec un marchepied s'ouvrant avec la porte. Telle est la description donnée dans le Catalogue de la voiture qui est le sujet de nos illustrations de ce mois.

Nous devons avouer, quoique cette confession puisse mettre en doute notre jugement et notre bon goût, que cette voiture ne nous paraît pas belle. Sa forme est lourde et dépourvue de grâce, c'est en vain que nous y cherchons ces élégantes propor-

tions, ces ceintres délicats, cette rare harmonie des plus belles lignes imaginables, cette légèreté si attractive qui sont si manifestes dans les meilleurs spécimens de barouche de nos jours, et qui promet, non seulement de gagner l'estime général pour ce genre de voiture, mais qui promet aussi de conserver sa popularité parmi le public.

Nous pouvons parler avec louange de l'arrangement général de la voiture ; l'ouvrage au train de forge est assez bon, mais, pas dans sa forme, la plus recherchée. Des ressorts sans bruit nous ne pouvons pas dire grand'chose, sinon que nous doutons un peu du manque absolu de bruit dans tout ce qui est fait d'un métal si dur que l'acier et soumis à tant d'action et de concussion que les ressorts d'une voiture, et nous pensons que le secret de rendre les ressorts elliptiques absolument sans bruit n'a pas encore été découvert.

La peinture est sans faute. La couleur est marron relevé de rose, ce dernier à sa propre place et pas trop saillante ce qui est souvent le cas. Il y a un joli ornement d'armoiries ou de blason sur les panneaux de la porte entouré d'un ruban sur lequel est inscrit le motto "*Honesta quam splendida*," qui est en effet la pierre de touche critique à l'égard de cette voiture qui est plus honnête que splendide, plus pure qu'éblouissante, plus utile qu'éclatante, plus serviable qu'attractive. Ce doit être plutôt à cause de "*l'honesta*" qu'à cause du "*splendida*" que le jury a décerné une médaille à cette voiture, ou pour parler plus correctement, aux constructeurs. Selon nous, la grande excellence du travail et du matériel neutralise grandement l'effet produit par le manque de style et de grâce que nous avons cru devoir faire remarquer. C'est parce que le public aperçoit et apprécie le "*splendida*" plus que "*l'honesta*" que cette voiture n'a pas attiré beaucoup d'attention, et que la justice et la discrétion des jurés ont été mises en question par quelques uns.

La garniture est de drap bleu et de maroquin, chaque partie du matériel est d'excellente qualité et le travail est bon, ce qu'on peut aussi dire de l'ouvrage de cuir. Tous les arrangements secondaires sont de choix et dignes du tout, tandis que le mérite intrinsèque et le fini soigné et complet du tout nous justifie de regarder la barouche des Messieurs Hall, malgré ses fautes, comme un spécimen décidément respectable de vraie carrosserie anglaise.

MASON, CARRIAGE WORKS, KINGSLAND BASIN, ET A CLAPTON.

WAGONNETTE capable de porter dix personnes sur des principes perfectionnés, formant une voiture ouverte ou un omnibus extrêmement léger.

En présentant à nos lecteurs un dessin de cette voiture, si bien et si substantiellement construite, si bien et si soigneusement finie, nous ne pouvons pas prétendre au mérite d'appeler leur attention sur un ouvrage qui possède beaucoup d'originalité demandant notre remarque particulière ou possédant des titres particuliers à notre admiration ; quant au dessin et à la construction, on n'a rien tenté de nouveau, c'est pourquoi il y a peu à critiquer et à inviter notre attention ; et par conséquent nous n'avons que peu à dire.

Cette voiture (voyez le "Catalogue Illustré") est hautement

recommandée pour son extrême légèreté de tirage et pour l'abondance de place qu'elle offre ; nous sommes loin de différer de cette assertion, comme nous considérons qu'elle possède ces "*desiderata*" à un degré peu ordinaire ; mais nous ne pouvons pas être tout-à-fait persuadés que cette voiture puisse être heureusement usée avec un seul cheval. Les dimensions actuelles nous amènent à une opinion contraire, surtout quand nous considérons que cette voiture doit porter dix personnes ; nous sommes disposés à croire que celui qui conduirait cette voiture quoiqu'il puisse être un homme juste, qu'il ne soit pas très-miséricordieux envers son animal.

Cependant cette voiture, considérant la place qu'elle offre, est très-légère et arrangée de telle manière que nous ne doutons pas qu'elle prouvera être beaucoup plus légère au tirage que sa dimension le ferait supposer à un observateur ordinaire, mais après avoir considéré la diminution dans le poids actuel du tirage que le mécanisme supérieur et que l'arrangement intelligent ont effectuée, nous ne pouvons que soutenir l'opinion que cette wagonnette ne pourra être employée pour aucun usage pratique avec un seul cheval.

L'ouvrage au train de forge, les ressorts, la menuiserie et la caisse sont bons à tous égards. La peinture, quoique peut-être trop frappante pour le goût général et pur, est bien exécutée ; la garniture et l'ouvrage de cuir sont sans faute, et nous croyons que la recherche la plus minutieuse manquera de découvrir un détail quelque peu important qu'il soit, indigne de la voiture elle-même. Que cette voiture soit bien dessinée et présente une belle, nous pourrions presque dire une noble apparence et qu'elle est calculée à bien travailler et à travailler longtemps, doit être, nous pensons, l'opinion de tous ceux qui se sont donné la peine de former un jugement sur cette voiture. Et tandis que nous félicitons le constructeur qu'a été honoré d'une médaille, nous ne croyons que répéter le sentiment plus général lorsque nous disons que cette distinction n'a pas été décernée sans mérite.

TO THE EDITOR.

Coach and Harness Manufactory, Orchard Street, London, W.

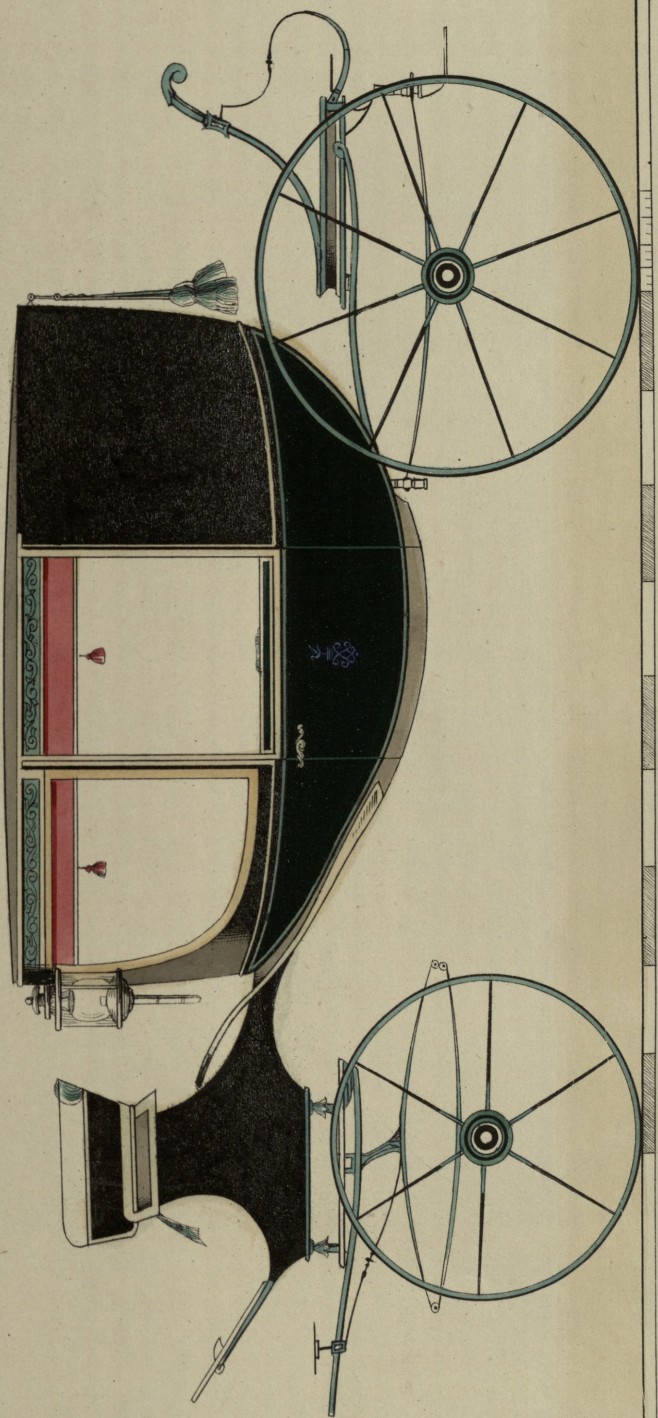
DEAR SIR—In looking through the notice of our Exhibition Carriage with which you favour us in No. XXXV., we fancy from your remarks you have not quite understood our ventilating apparatus as applied to our carriage. We fancy our attendant has not explained to you that the ornament in the centre of the roof is intended more for use than ornament, as it is the channel by which we purpose the heated air to pass away. It opens into a wide tube which is carried along the roof (under the cloth) and through the back panel to the outside of the body ; your idea being that when the carriage is in motion a current of fresh air will enter by the ventilators over the windows, driving before it the heated air, which will escape by the ventilator in the centre, or highest part of the roof, through the tube to the exterior at back of the body. This tube is concealed at the orifice, by which means we also prevent wet penetrating."

Yours very faithfully,

JOHN WOODALL AND SON.

ERRATUM.

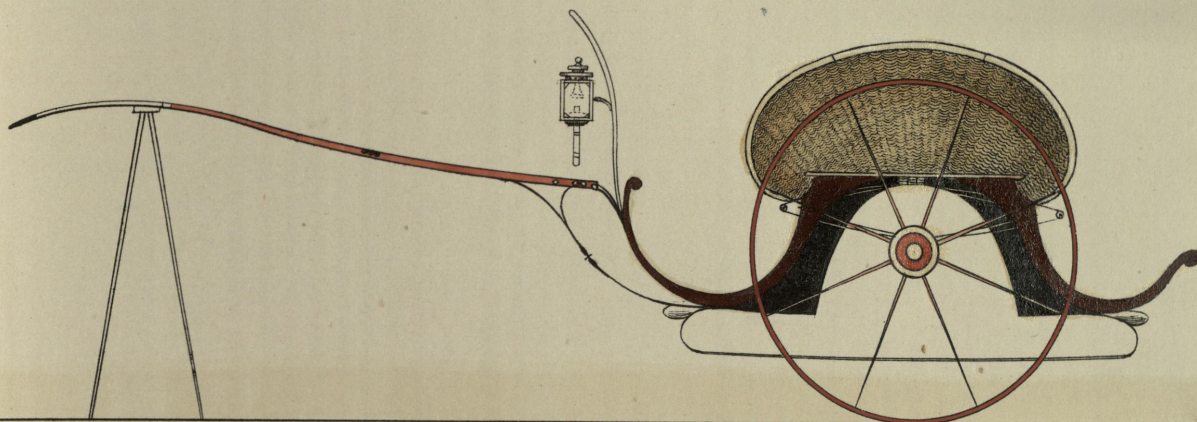
In a recent article in which reference was made to the works of Messrs. Mander, Brothers, they were erroneously stated to be of High Holborn and Southampton, it should have been Oxford Street and Wolverhampton.—ED.



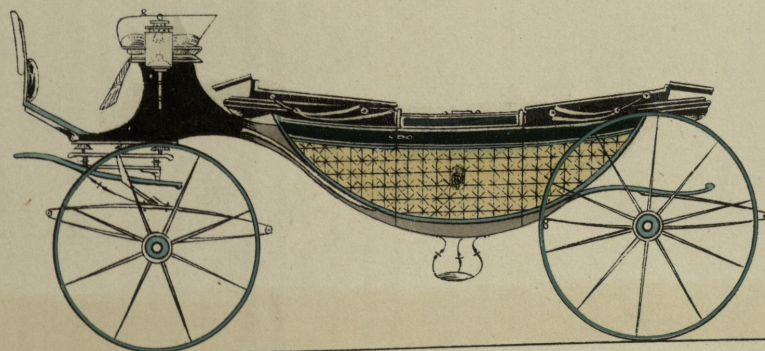
SIDE LIGHT COACH.

WITH IMPROVEMENTS IN VENTILATION

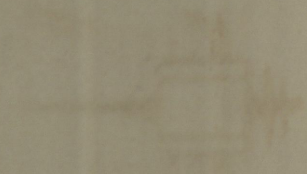
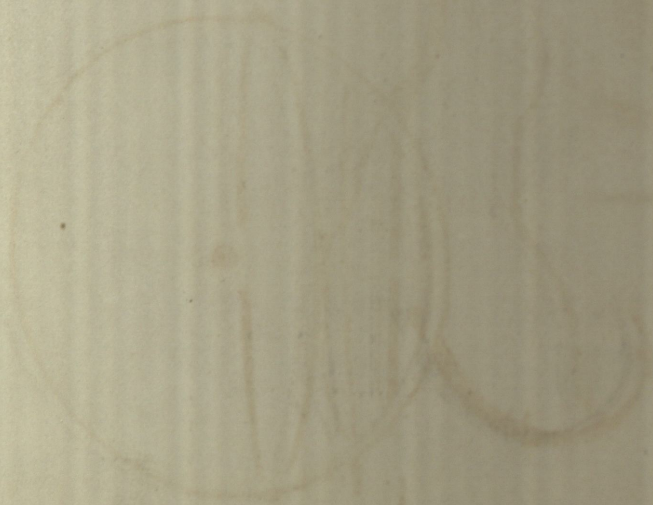
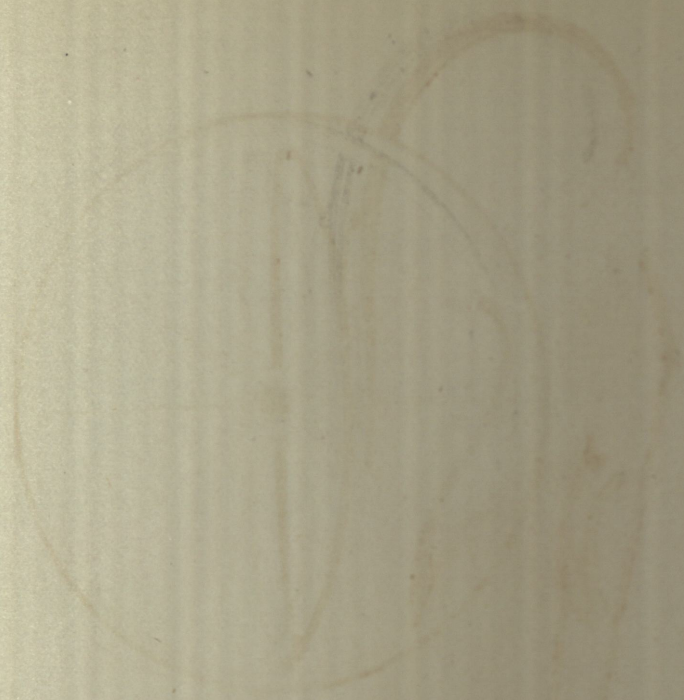
21

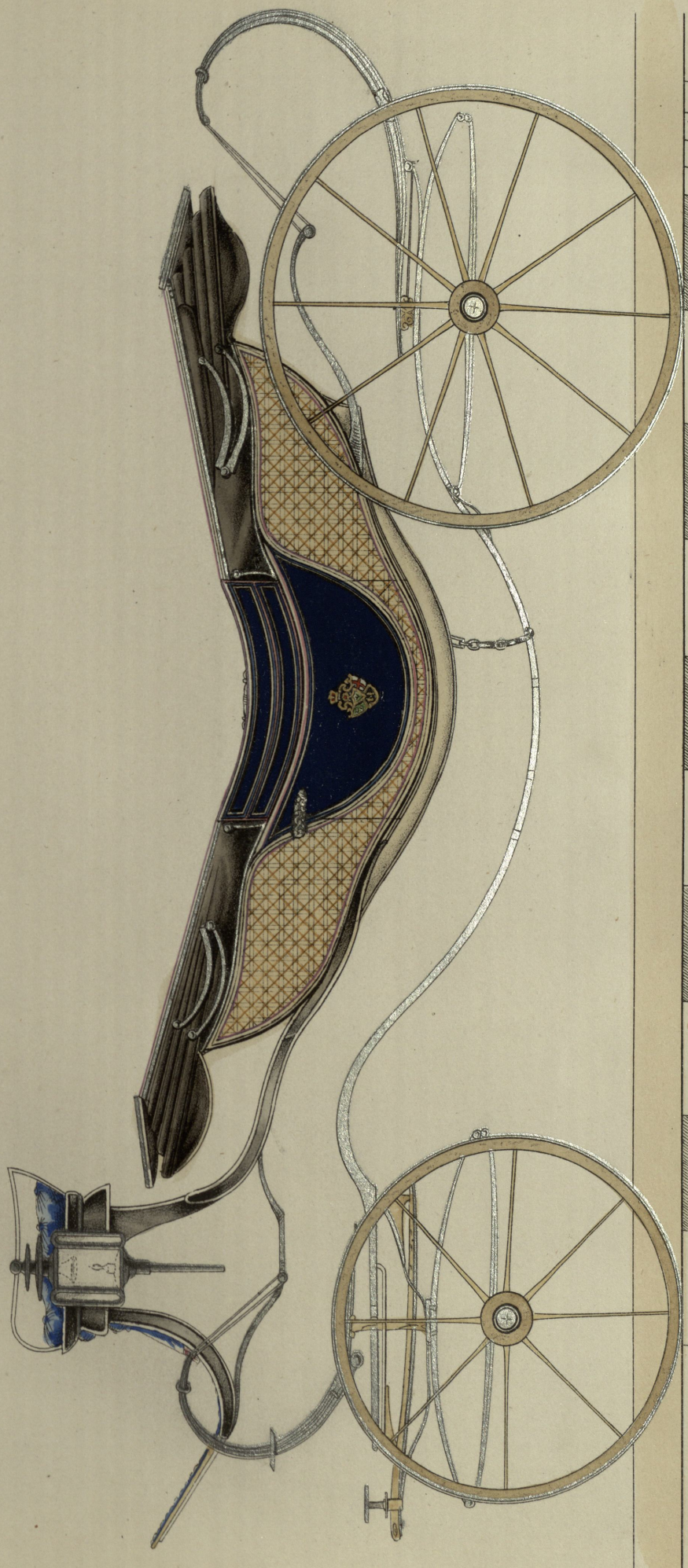


CART OR SLEIGH.

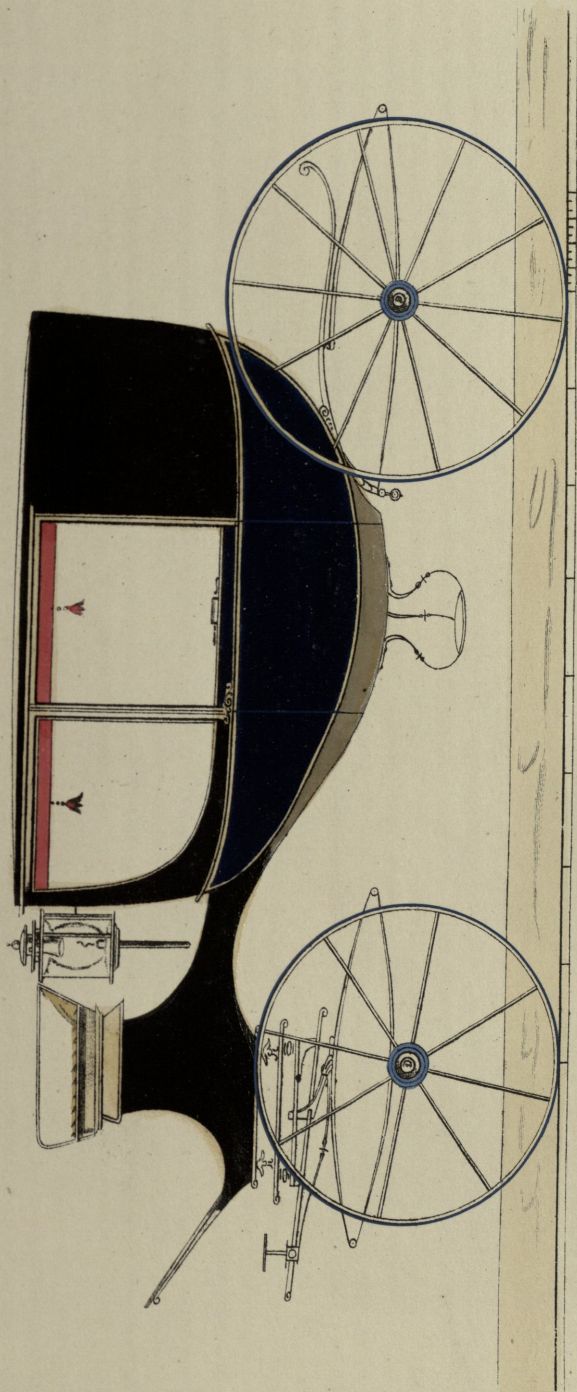


ONE HORSE SOCIABLE LANDAU.



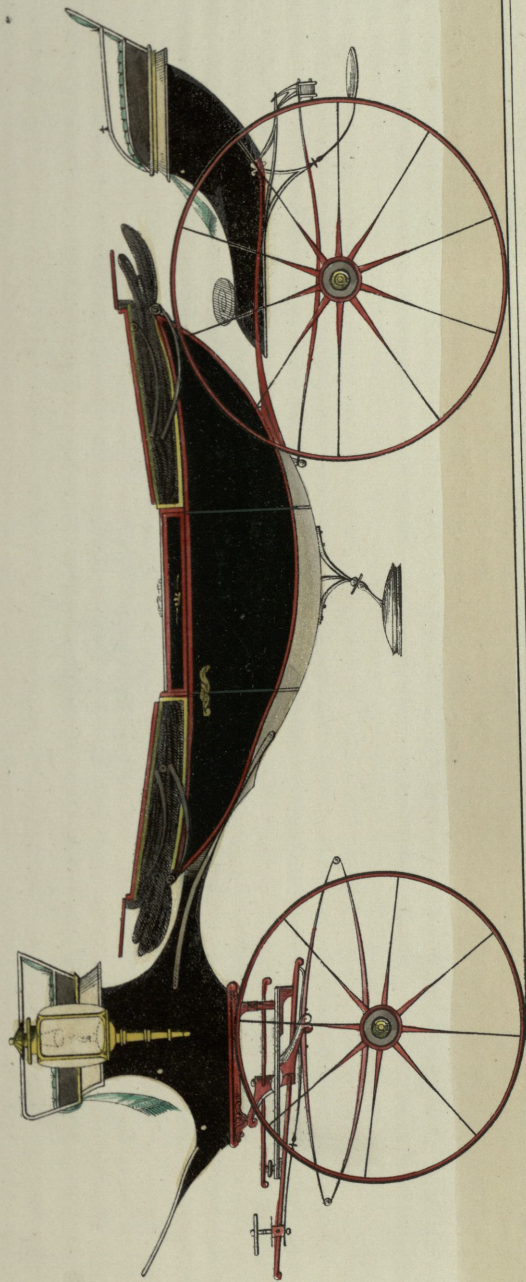


CEE AND UNDER SPRING ELCHO LANDAU.

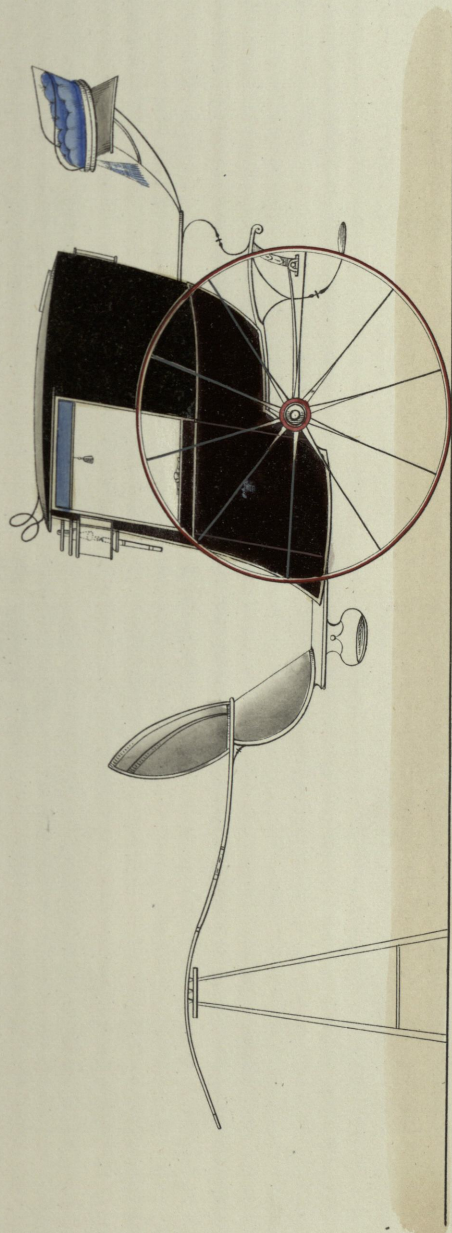


LIGHT ELLIPTIC SPRING COACH.

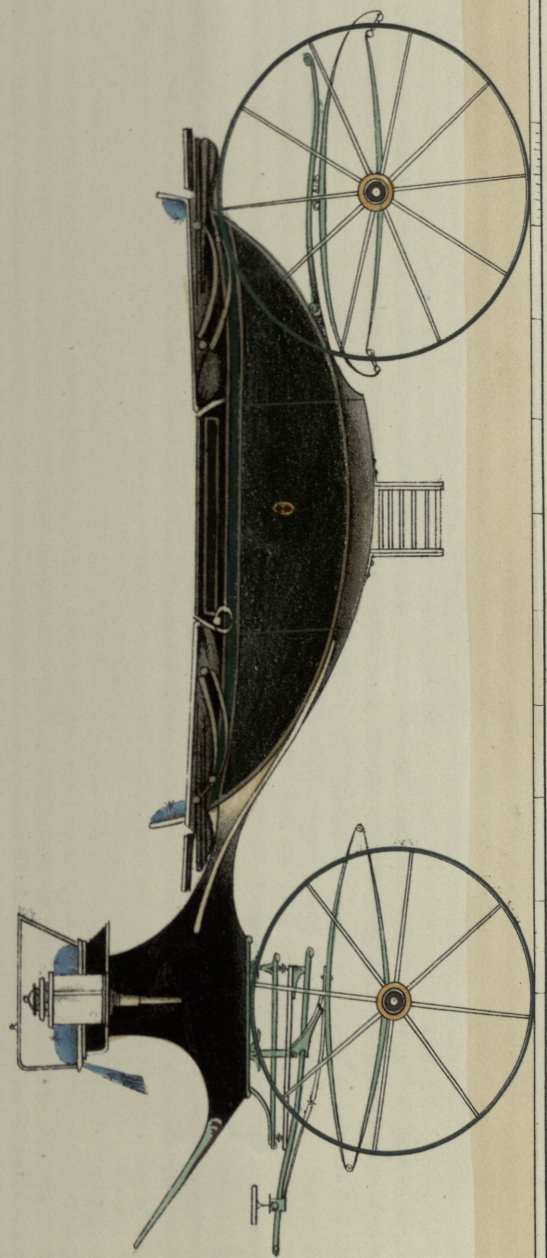
THE ENGLISH COACH BUILDERS ILLUSTRATED RECORD OF THE INTERNATIONAL EXHIBITION 1862.



FAMILY LANDAU.

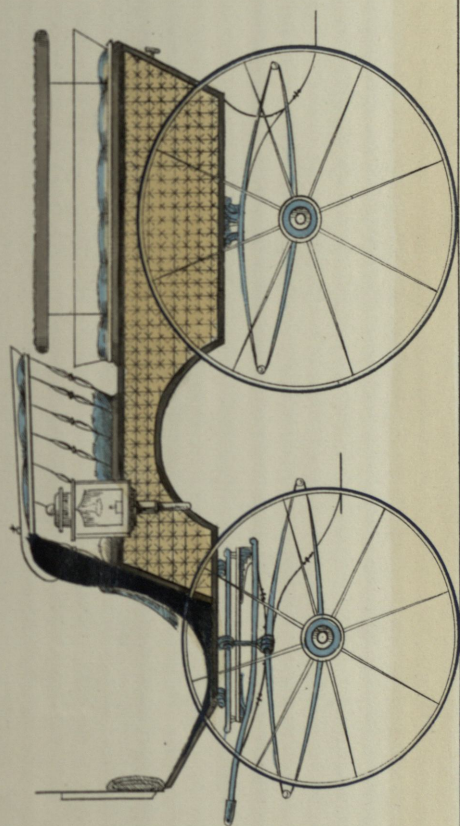


NEW BROUGHAM 'SHOFLE'.

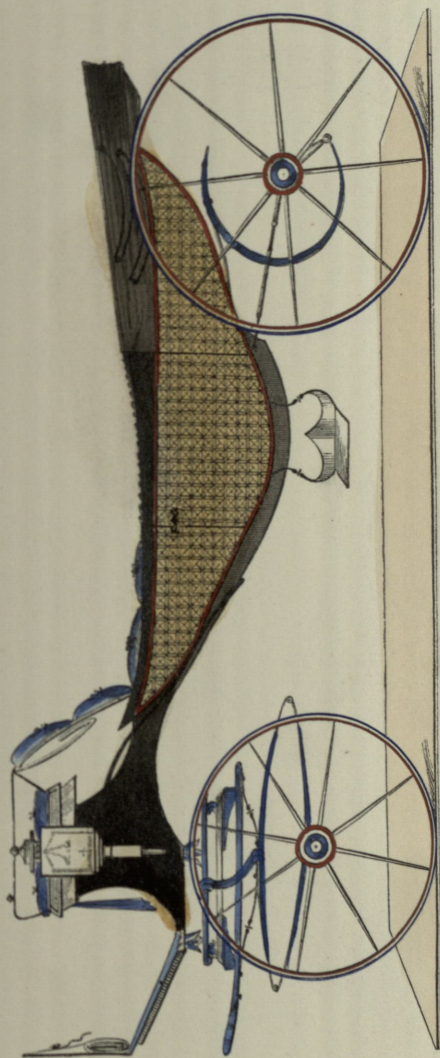


THE GRANVILLE BAROUCHE LANDAU.

THE ENGLISH COACH BUILDERS ILLUSTRATED RECORD OF THE INTERNATIONAL EXHIBITION 1862.

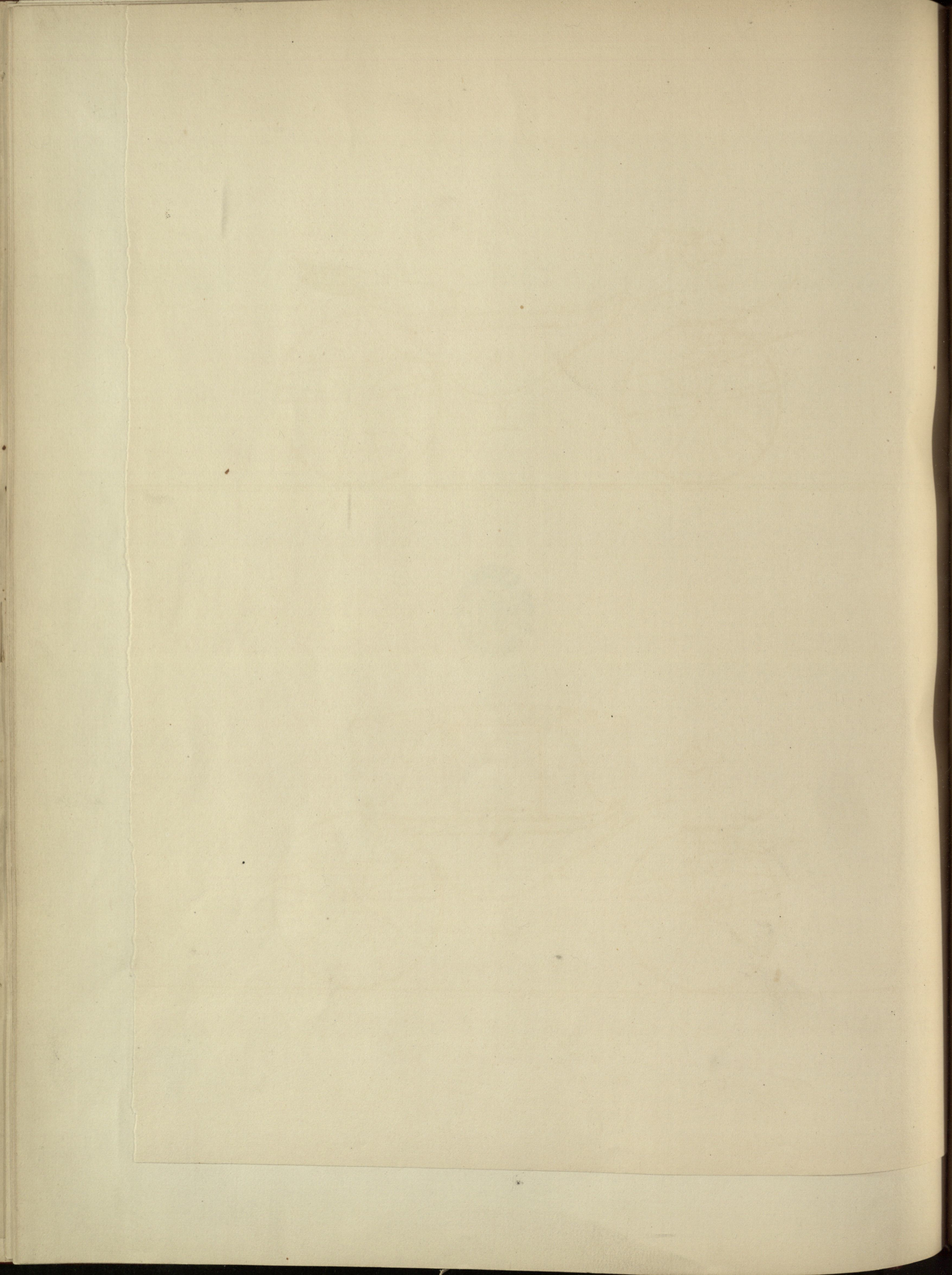


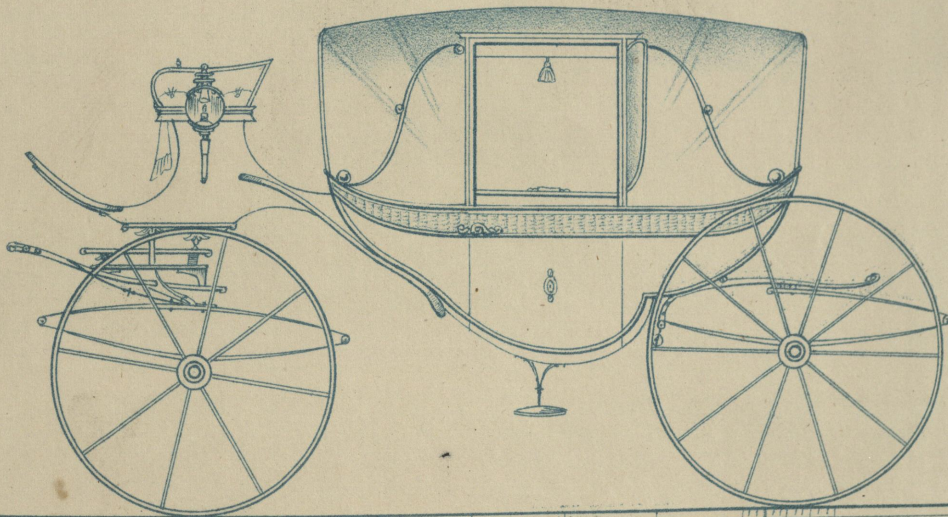
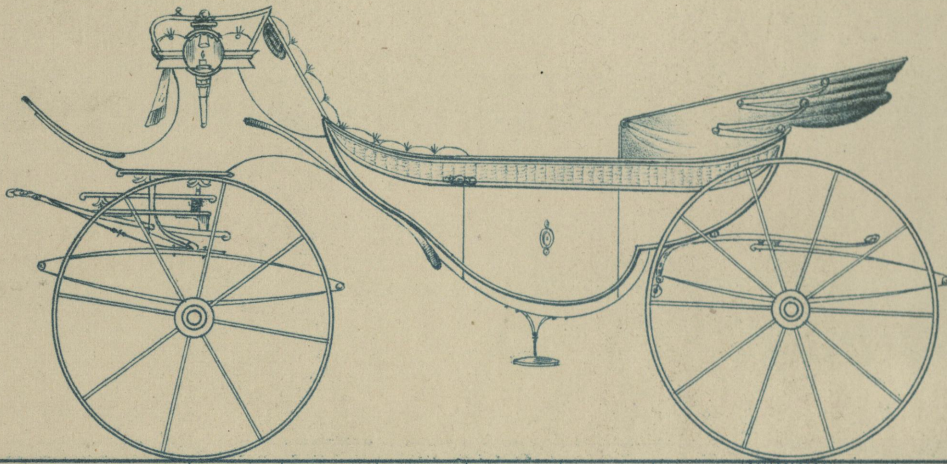
STANTHOPE PHAETON WAGONETTE.



CORBEN'S DIAROPHA.

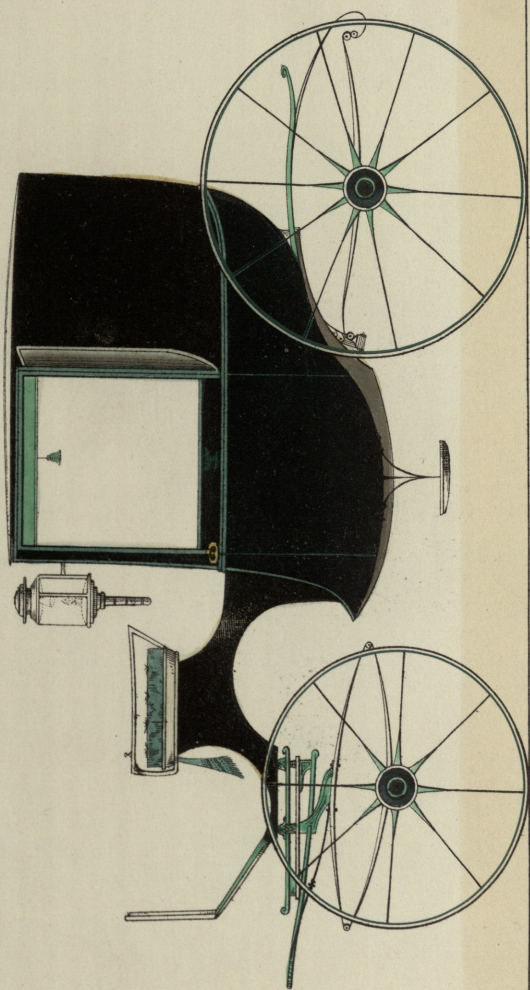
THE ENGLISH COACH BUILDERS ILLUSTRATED RECORD OF THE INTERNATIONAL EXHIBITION.



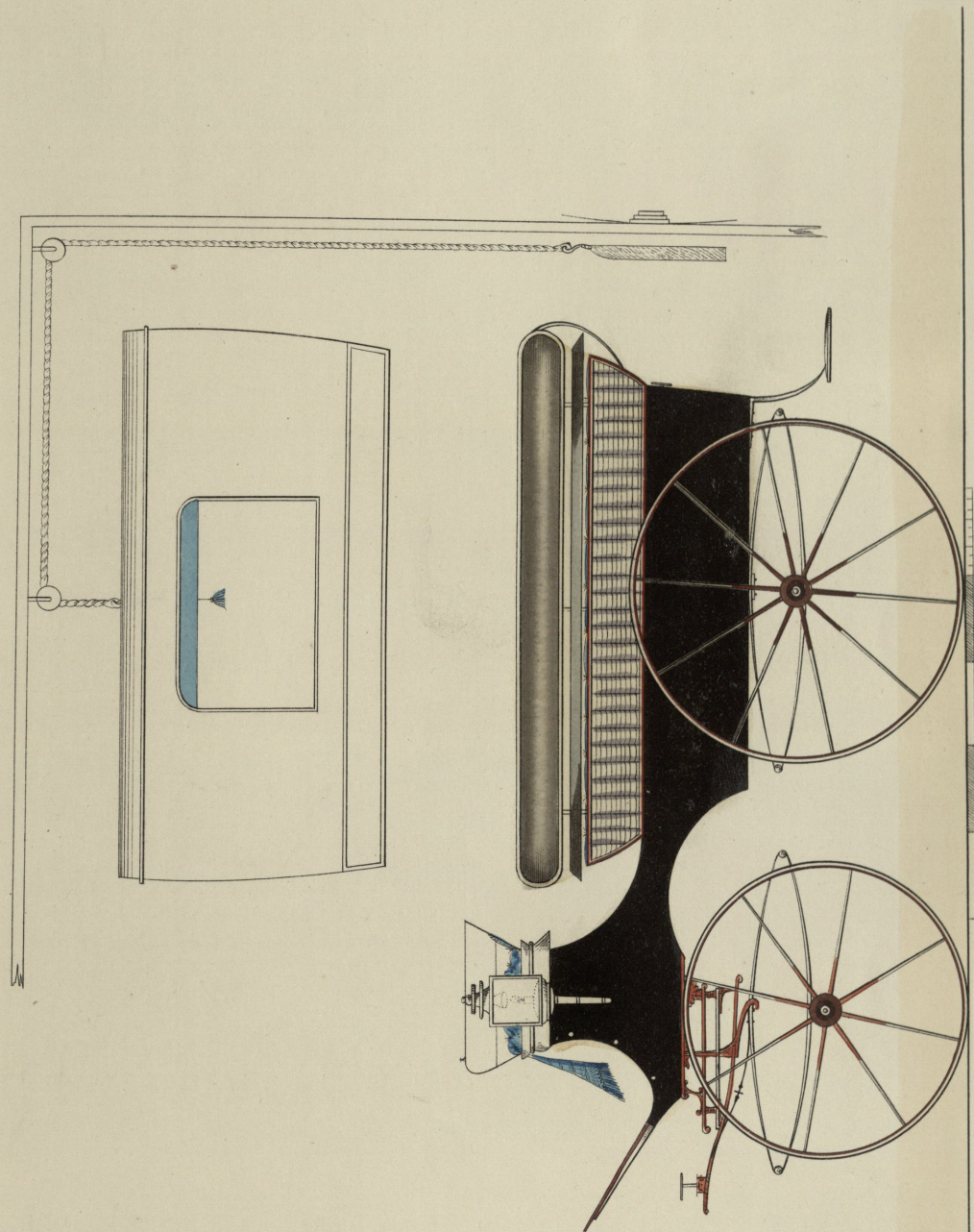


THE ^{PP} TESSATEMPORA.

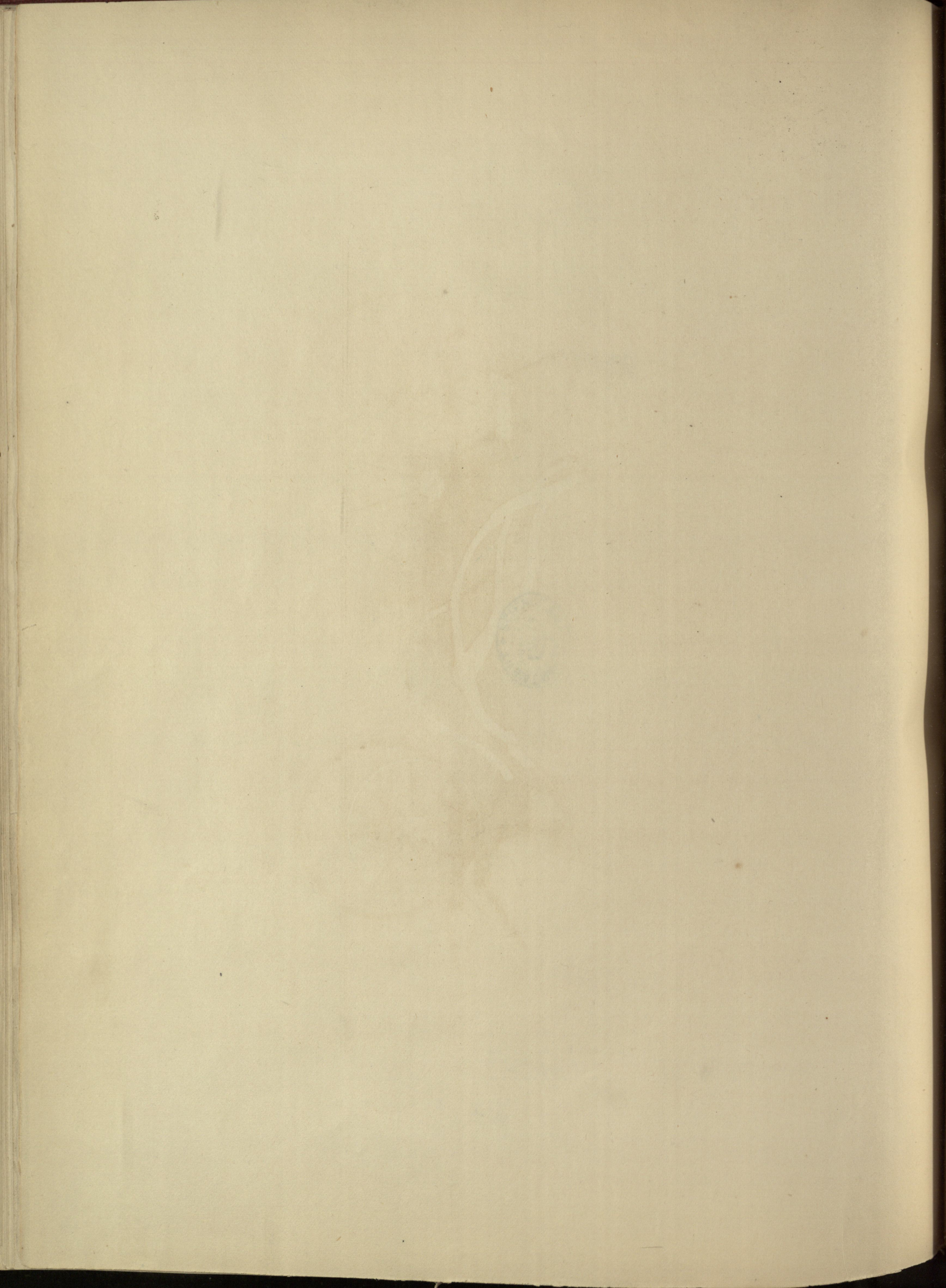


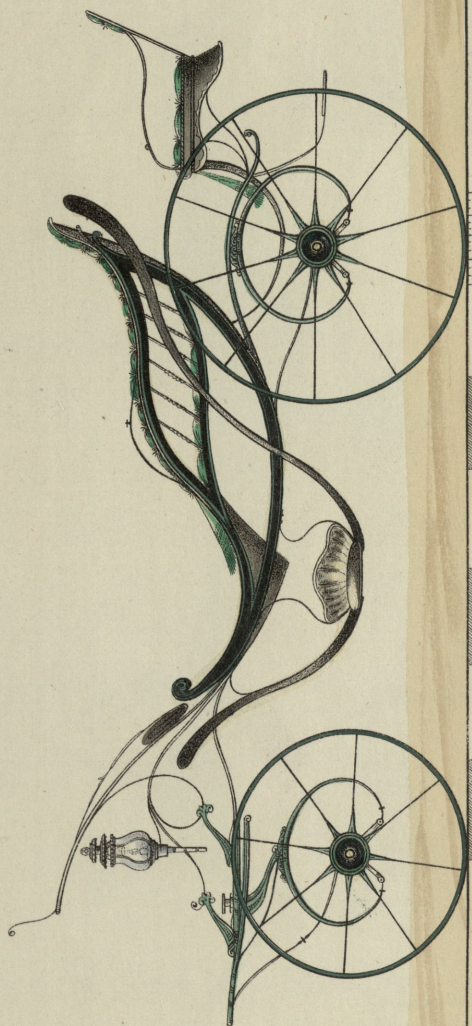


SINGLE BROUGHAM.

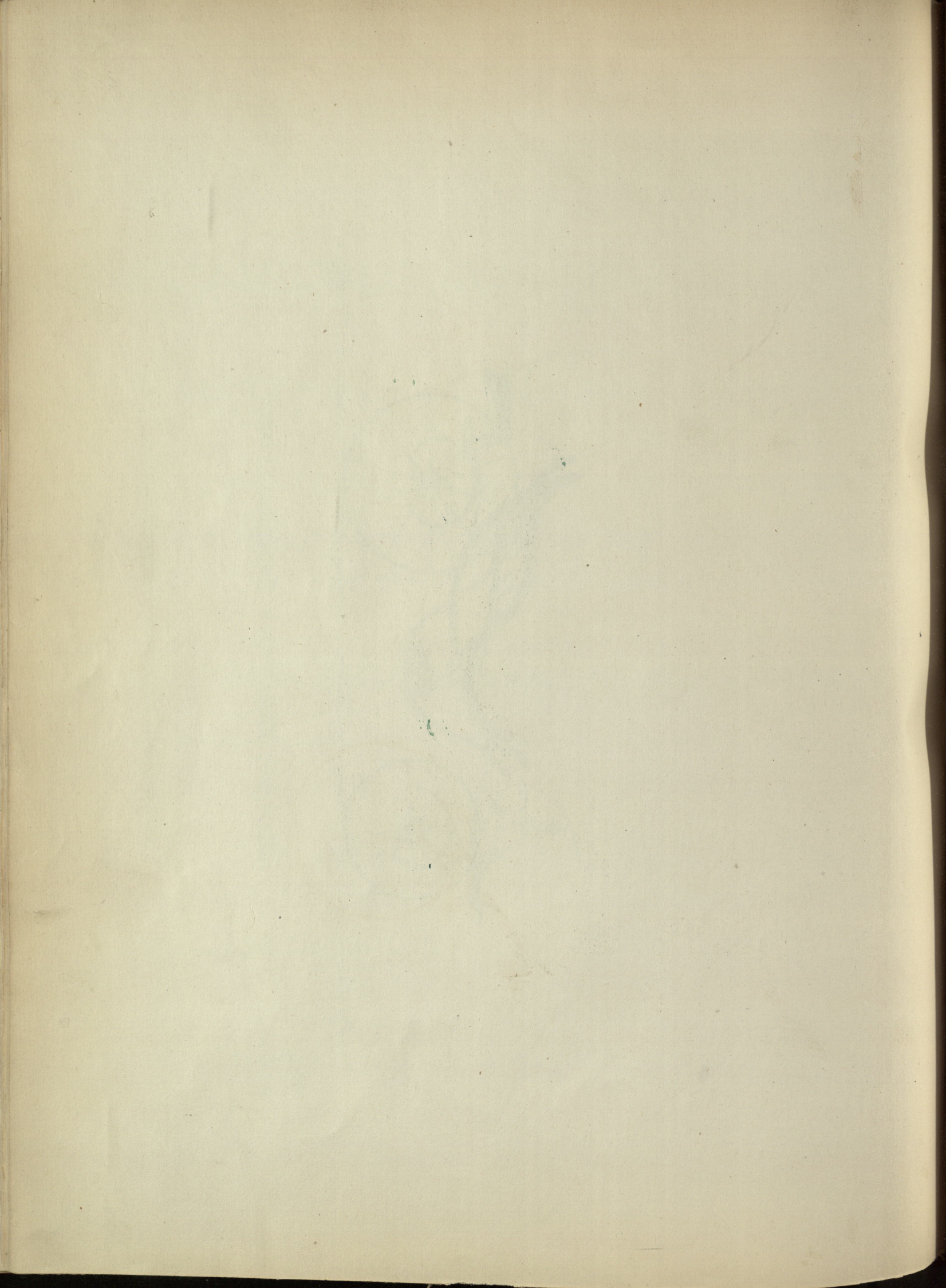


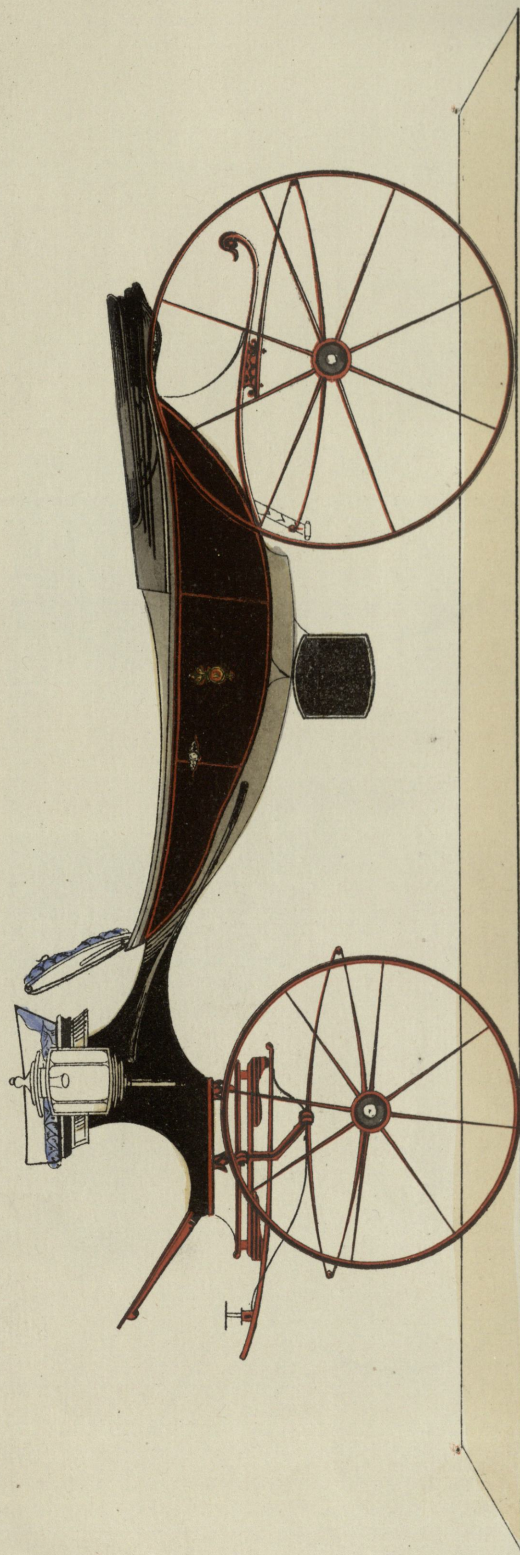
WAGGONETTE FOR EIGHT PERSONS.





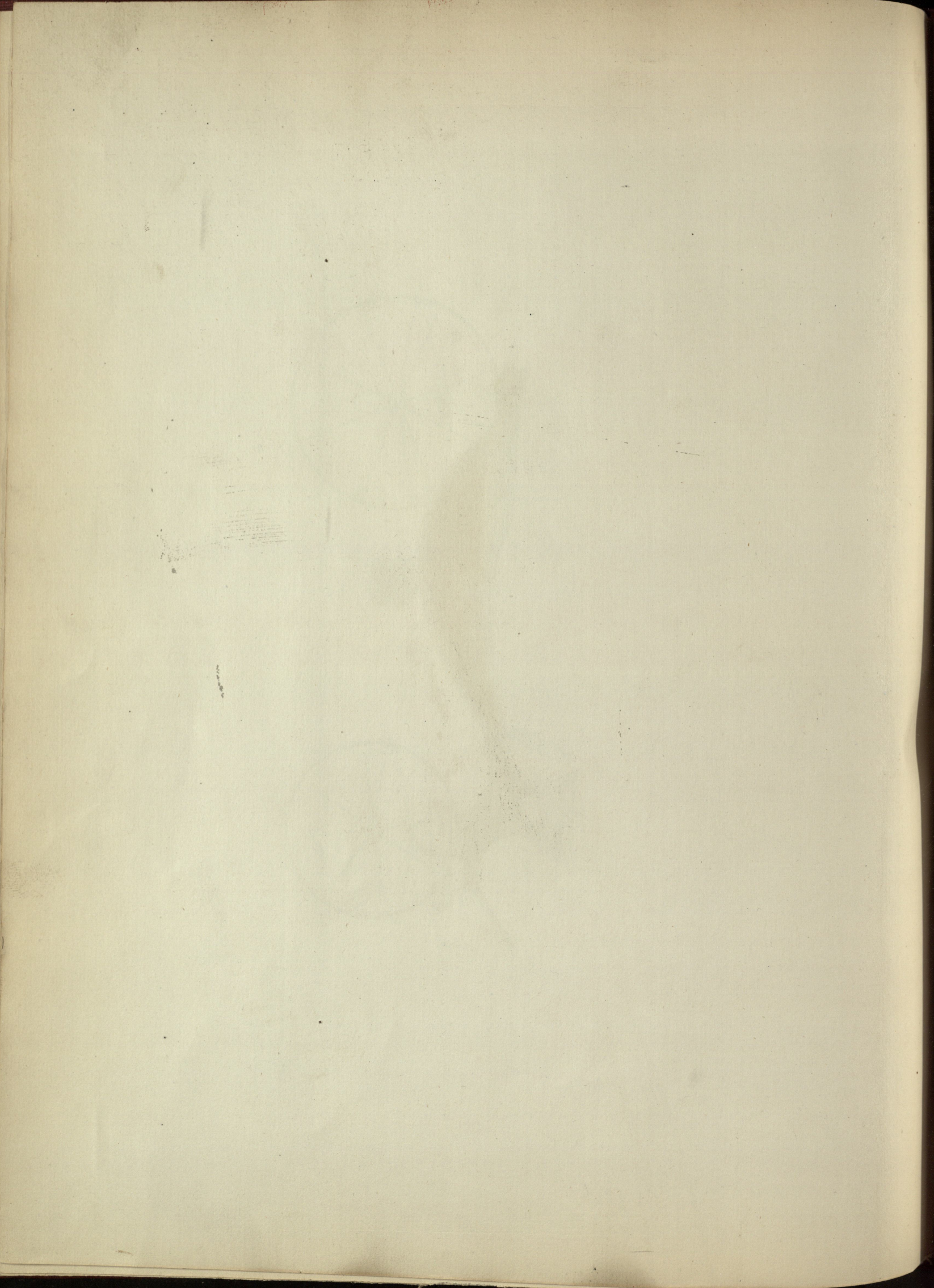
PARK PHAETON, ON INVERTED DOUBLE CEE SPRINGS.

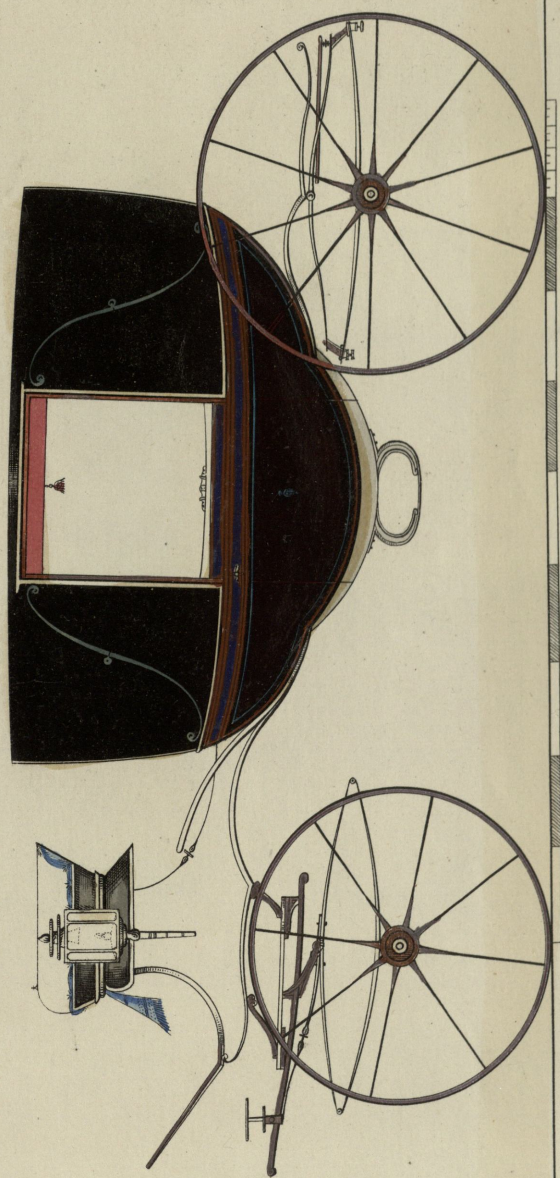




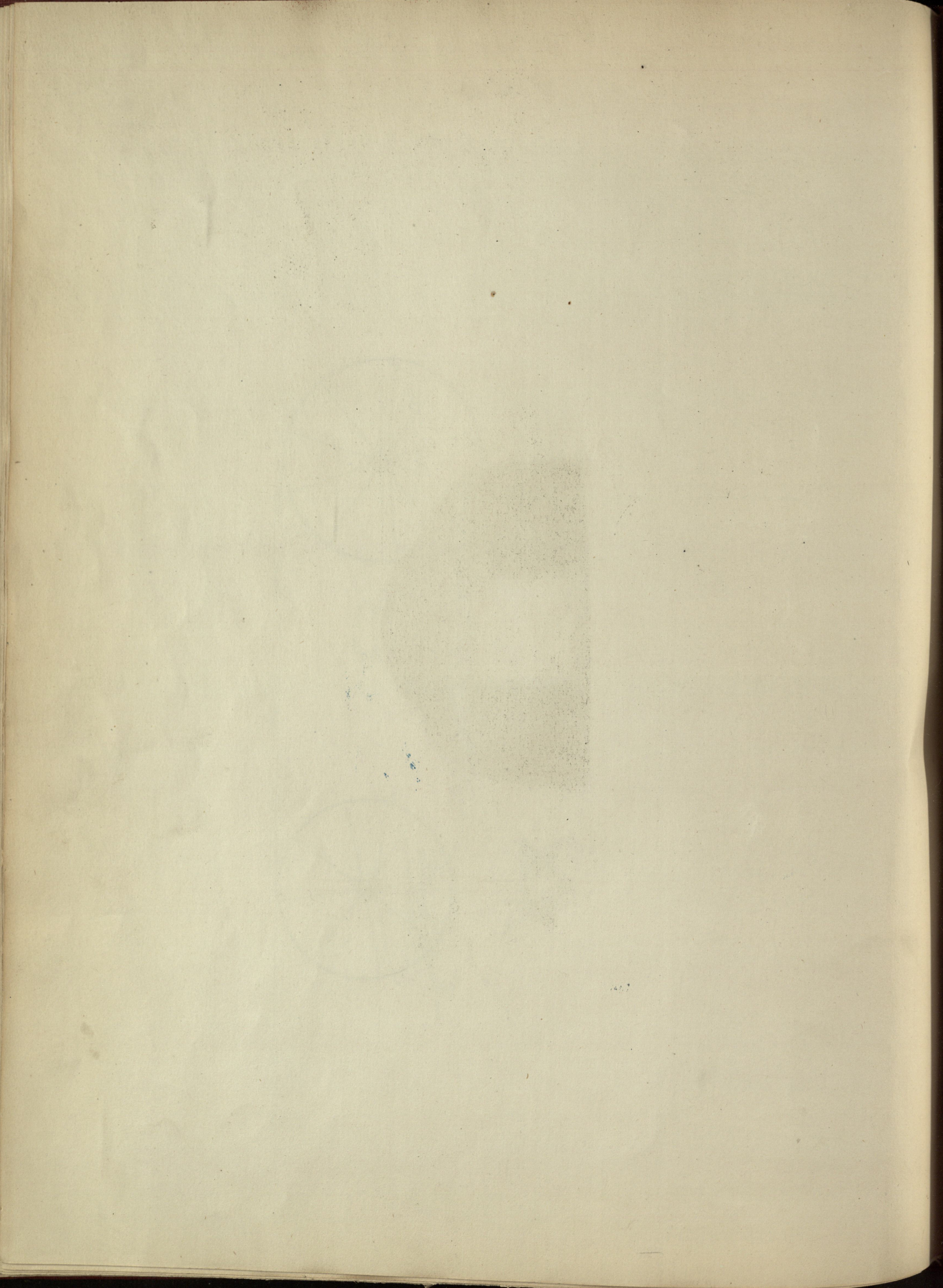
F. Guyer & Co. So.

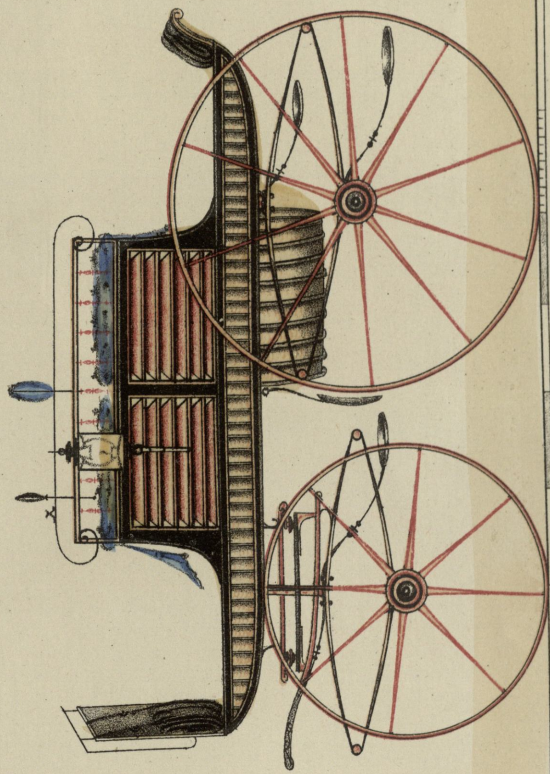
BAROUCHE





DIAROPHA WITH IMPROVEMENTS.





F. Geyer & Co. Sc

THE PERTH DOG CART

THE ENGLISH COACH BUILDERS ILLUSTRATED RECORD OF THE INTERNATIONAL EXHIBITION 1862.

~~PA~~

9-10-61

